



‘DEFINITELY SHE USED THE WORD POISON, I LIKED THAT’. ELDERLY SIKH IMMIGRANTS’ EXPERIENCE OF A CULTURALLY ADAPTED PREVENTATIVE HEALTH INTERVENTION

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Abstract

Aims: Punjabi Sikh immigrants are more likely to develop and live with lifestyle related illnesses than the host population. Identifying factors that influence these health inequalities is challenging. Various socio-cultural factors have shown to pose barriers for this sub-group to access mainstream preventative health services. The current study aimed to explore how elderly Punjabi Sikhs made sense of taking part in a culturally adapted health promoting intervention (CAHPI), to facilitate physical activity and healthy eating behaviours. A newly developed behaviour change model: COM-B underpinned the intervention design and contents.

Method: Semi-structured interviews were conducted with a purposeful sample of 7 Sikh immigrants who had taken part in a CAHPI. The resulting data was analysed using Interpretative Phenomenological Analysis, focusing on the participants lived experience of the CAHPI.

Results: The following themes were revealed: 1) “for our good health, we are getting some help with our health”, 2) “It was in our Gurdwara”, 3) “We all got together, the time passed nicely”, 4) “We are in a different stage in our lives now, we are not the same people we were 10 years ago, and 5) “You can’t learn all the things in one day, we need some more”.

Discussion: The in-depth analysis allowed this generally ‘unheard’ population, to voice their views of taking part in the CAHPI. The findings showed that by incorporating meaningful components relating to the design and delivery of such interventions, wider engagement of the target population can be achieved. The IPA approach helped capture the complexities that exist between individuals within these specific populations, and the meanings they attach to the phenomenon being explored.

Conclusion and implications: The current findings show the importance of drawing on a range of disciplines and guidance from the newly developed COM-B model to help identify and understand the mechanisms that facilitate behaviour change in this context. Consequently, meaningful collaboration between health care professionals and local communities can help identify strategies for addressing some of the health inequalities that exist within this marginalised community. In particular, the utility of places of worship and fear appeal approaches for delivering such initiatives, have shown to be invaluable.

Keywords: Health inequalities, Punjabi Sikhs, culturally adapted interventions, COM-B.

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Chapter 1: Introduction

One of health psychology's key aims is to promote health behaviours by uncovering the mechanisms through which they occur, and consequently understanding how they influence the development of health and illness. As such, the discipline health psychology draws upon a range of perspectives in its analysis of health and illness (Ogden, 2012). The first is the biopsychosocial model of health and illness developed by Engel (1978), which aims to take a holistic perspective by emphasising that physical health and well-being are influenced by complex interactions between biological; genetics, viruses etc., psychological; cognitions, emotions and behaviours etc., and social factors; context, ethnicity, occupation etc. However, critiques of this multi-level model (Spicer & Chamberlain, 1996; Cornish, 2004) argue that the static portrayal regarding levels of analysis, and failure to consider the fluid interactions between these levels, question its overall utility. Health psychology also accentuates health and illnesses are viewed on a continuum, and investigate ways in which psychosocial factors influence different stages of illnesses such as their onset, progression and adaptation. Furthermore, health psychologists also consider the concepts of direct and indirect pathways relating to psychology and physical health status. For example, direct pathways relate to the notion that psychological states for instance stress, can have a direct impact on illnesses such as coronary heart disease (CHD). This perspective emphasises that the way an individual experiences their life, has a direct impact on their physical health status. Indirect pathways reflect the notion that a way an individual thinks influences their health status through behavioural factors such as unhealthy eating and physical inactivity. According to the World Health Organisation, health promoting behaviours such as healthy eating and physical activity have been shown to reduce the risk of lifestyle related illnesses such as CHD, diabetes mellitus (DM) and hypertension. Healthy eating is described as the consumption of a balanced diet from a wide variety of foods in suitable proportions, and physical activity is described as “any bodily movement produced by skeletal muscles that requires energy expenditure” (World Health Organisation, 2016).

Globally and within the United Kingdom (UK), individuals of South Asian origin are more likely to develop and live with CHD and DM than the general population (Gill, Kai, Bhopal, & Wild, 2007).

However, identifying factors that influence the development of these diseases among different ethnic groups including those from South Asia is challenging. Variations found in genetic makeup as well as in socio-cultural practices among ethnic sub-groups may influence this vulnerability. For example, according to Scarborough, Bhatnagar, Kaur, Somlina, Wickramasinghe, & Rayner, (2010), known risk factors including high cholesterol and hypertension vary between ethnic groups, and the ways in which they combine to increase the likelihood of developing these diseases also vary (Scarborough et al., 2010). Additionally, there are significant differences in the methods through which ethnicity data relating to these conditions are obtained both within and between sub-groups, making comparisons problematic (Scarborough et al., 2010). However, despite these shortcomings, an examination of ethnic differences in lifestyle related diseases generally confirm that they are disproportionately higher among ethnic sub-groups compared to the general population. For example, data obtained during 2001-2008, showed that the prevalence of CHD was higher in South Asian men compared to non-South Asian men. Additionally, the incidence of myocardial infarction or heart attack; caused by a blockage of one of the arteries was shown to be higher in South Asians than in non-South Asians for both men and women. Furthermore, South Asian men show a significantly higher prevalence of DM than the general population (Scarborough et al., 2010). These consistent adverse findings should be considered as a priority for governmental bodies when planning health-promoting interventions to overcome health inequalities in this highly vulnerable risk group. Moreover, data from Public Health England Outcomes Framework show that DM and CHD are on the increase, presenting the UK's National Health Service with serious clinical and financial implications (Department of Health, 2012). Hence, it is imperative to find ways of reducing this public health burden, and addressing the health inequalities that exist in marginalised groups (Scarborough et al., 2010; Buck & Gregory, 2013).

Although some reference is made to genetics in the development of both CHD and DM, health compromising behaviours influenced by socio-cultural practices are frequently cited as playing a leading role in health inequalities amongst ethnic sub-groups (Cuppuccio, 1997; Nazroo, 1998; Barnett, Dixon, & Bellary, 2005). As shown individuals of South Asian origin have an increased risk of developing lifestyle related diseases such as CHD and DM and their associated complications including stroke, renal failure and even premature death compared to the general population in the UK (Gupta et al., 2005; Sahni & Leslie, 2005; Lawton, Ahmad, Hanna, & Douglas, 2006). However, this

vulnerability is even more evident in elderly migrant South Asian sub-groups, particularly those identified as Punjabi Sikhs residing in developed countries including the USA, Canada and the UK (King, LeBlanc, & Sanguins, 2006; Lip, Barnett, & Bradbury, 2007; Galdas, Bindy, & Kang, 2010). Risk factors such as DM, abdominal obesity, stress, unhealthy eating, and inactivity, have specifically shown to explain the increased CHD risk in elderly migrant South Asian populations including Punjabi Sikhs (Gupta & Brister, 2006). Due to their increased vulnerability, elderly Punjabi Sikh immigrants have been selected as a justifiable population for the purpose of the current study.

For those individuals with existing CHD and DM from this vulnerable sub-group, promoting physical activity and healthy eating behaviours have shown to improve disease control and quality of life (Ades, 2001). Individuals at risk of developing or diagnosed with either CHD or DM are encouraged to self-manage the disease by increasing their levels of physical activity, and consuming healthy diets (Lawton et al., 2006; Sidhu, Gale, Gill, Marshall, & Jolly, 2015). Within the UK, research has shown that South Asians in general have a lower prevalence of physical activity related behaviours in comparison to their European counterparts (Babakus & Thompson, 2012). Additionally a recent qualitative literature review uncovered a number of socio-cultural factors underlying unhealthy eating practices in this population (Lucas, Murray & Kinra, 2013). However, it is important to note that although health behaviours are a useful indication of prevalence, it is challenging to ascertain comparable conclusions due to the nature of the measures used to assess those indicators (Babakus & Thompson, 2012). Additionally, labels like ‘South Asian’ are deceiving as they fail to reflect the true extent of diversity between such sub-groups. A focus on ancestral origins and religious affiliations such as Punjabi Sikhs, as explored in the current study is able to highlight the level of heterogeneity relating to lifestyle practices across South Asian sub-groups. For example Punjabi Sikh immigrants are noted to have a higher risk of CHD (Galdas et al., 2010) and DM (Sidhu, Griffiths, Jolly, Gill, Marshall, & Gale, 2016) than the general population. Sidhu and colleagues showed Punjabi Sikhs are more likely to have limited availability and access of healthcare resources, as well as low uptake of preventative health care services. This more narrowed sub-group analysis allows an understanding of specific contextual factors pertinent to a particular group’s lifestyle behavioural needs (King et al., 2006; Bedi, LeBlanc, McGregor, Mather, & King, 2008). Additionally, this specific

sub-group analysis also offers a way of understanding the contextual factors that impact of the type of healthcare provision accessed, as well as allowing to capture meanings assigned to their unique perceived health status and cultural needs (Sidhu et al., 2016]

The development (Misra & Gupta, 2004) and progression of such lifestyle related diseases have shown to be reduced by behaviour modification through culturally adapted health promotion interventions (CAHPIs) (Lawton et al., 2006; Coe & Boardmen, 2008; Sidhu et al., 2015). The terms ‘culturally adapted’ or ‘culturally sensitive’ are used to describe initiatives, which have been modified to increase their suitability for ethnic minority populations (Netto, Bhopal, Lederle, Khatoon, & Jackson, 2010). The following section will discuss some broader explanations relating to psychological factors underlying the target behaviours. It also discusses some distinctive behavioural patterns and socio-cultural norms and practices observed in the wider South Asian population, as well as in the Punjabi Sikh community. The findings are obtained from both quantitative and qualitative designed studies shown to either inhibit or encourage health-promoting behaviours. A more intuitive understanding of these patterns may help inform public health policy makers to design more meaningful health promoting interventions to reduce this disease burden for the target population and the wider society.

Chapter 2: Literature review

2.1. Inactivity and unhealthy eating in South Asian immigrants and Punjabi Sikhs

South Asians are recognised as those members of society with ancestral origins within the Indian subcontinent: India, Pakistan, Bangladesh, Sri Lanka and Nepal, or identified by their religious sub-groups: Hindu, Sikh and Muslim (Lawton, et al., 2006; Oliffe, Grewel, Bottoff, Dhesi, Bindy, & Kang, 2010). As mentioned, these sub-groups have an increased risk of developing lifestyle related diseases and subsequent complications (Daniel, Wilbur, Fogg, & Miller, 2013). Eating healthily and engaging in regular physical activity are recommended as effective contributors to lower the risk of CHD and DM (Warburton, Nicol, & Bredin, 2006), and have been widely researched in the general population (Thompson, Buchner, Pina, Balady, Williams, Marcus et al., 2003), as well as within these sub-groups (Lawton et al., 2006; Coe & Boardman, 2008; Sidhu et al., 2015; Jiwani., Cleveland, Patel, Virani, & Gill, 2017).

Although the discipline of health psychology is useful in offering some explanation of factors that influence the target behaviours, insights from other germane disciplines may provide additional explanations. A wider perspective may offer a deeper level of analysis that underpins psychological processes relating to the target behaviours in the target population. The following disciplines: community psychology, community health psychology (Campbell & Murray, 2004; Murray, Nelson, Poland, Maticka-Tyndale, & Ferris, 2004), and exercise psychology (Biddle & Fox, 1989; Smith & Bird, 2004) are discussed in turn.

2.1.1. Wider explanations offered regarding psychological factors underlying the target behaviours in the elderly population.

2.1.1.1. Community psychology and Community health psychology

As mentioned earlier, globally and within UK individuals of ethnic minority groups such as those of SA origin, are more likely to develop and live with lifestyle related diseases than host population (Gill, 2007). These persistent adverse findings should be considered as a public health priority for agencies responsible for planning health promoting interventions to address societal health inequalities. Evidence shows promoting health enhancing behaviours such as physical activity and healthy eating improves disease control and quality of life (Ades, 2001; Warburton, Nicol, & Bredin, 2006). Research has also shown that identifying factors that influence the development of these behaviours within ethnic groups is challenging due to the complex nature of their development (Campbell & Murray, 2004; Murray et al., 2004). Additionally as previously stated, although models such as the biopsychosocial model (Engel, 1978), attempt to provide a holistic perspective of health and illness influenced by complex interactions between biological, psychological and social factors, it only offers a static portrayal relating to the level of analysis. Hence, the model fails to consider the dynamic nature in which these mechanisms interact (Spicer & Chamberlain, 1996; Cornish, 2004).

The emerging discipline of community health psychology (Campbell & Murray, 2004; Murray et al., 2004), closely aligned to the values and principles of community psychology (Nelson, & Prilleltensky, 2010), offer alternative explanations regarding the mechanisms through which health and illness in general are influenced, as well as providing meaningful strategies to address them. It also highlights many shortcomings with mainstream health psychology, including its failure to address health inequalities observed in marginalised groups such as the one examined in the current study. For example, health psychology is seen to have a limiting role in influencing debates, policies and interventions into the causes of health inequalities, at both local and global level. Additionally research in this field shows limited relevance to the challenge of designing and implementing real-world interventions and policies that intend to promote health. This issue is more pronounced among the most marginalised social groups where poor health is thought to flourish (Marks, 1996). Community

health psychologists argue that research should aim to develop a deeper understanding of social conditions that are not only seen to be damaging health, but find possibilities of alternative social relations that are less damaging of health, as explored in the current study. Hence, one of the key aims of community health psychology is to identify the processes and mechanisms relating to the social conditions that may lessen as well as those that promote health and well-being. In this respect, the notion of social change is fundamental to both the theory and practice of the more established discipline of community psychology as well as the emerging discipline of community health psychology. Community psychology associates itself with grassroots movements to challenge social inequalities to promote broader social justice issues (Nelson & Prilleltensky, 2010). Similarities between both disciplines include importance of collaborative research, undertaken with communities rather than on them. Additionally, there is a strong emphasis on improving the quality of life of individuals, communities and wider society, and it is predominately action orientated.

As noted earlier, a deeper understanding of social conditions are important, hence a common aim of the discipline is an emphasis on community level of analysis. In this regard, communities are viewed as key mediators between the individual and the social context. Within this framework, Campbell & Murray (2004, p.189) maintain the concept of ‘community’ is either referred to as ‘communities of place’, referring to geographical space, or ‘communities of identity’, referring to shared social identity, including religious affiliation such as Punjabi Sikhs. Both descriptions make useful distinctions, although for pragmatic reasons are generally linked to a combination of resource constraints and convenience, the geographically bound definition is usually adopted. In addition, it could be argued ‘communities of identity’ such as cultural identity usually reside in similar geographical locations, such as the target population examined in the current study. It has been suggested that the close intertwining of ethnicity with socio-economic status has sometimes concealed the importance of culture in exploring the nature of health and illness (Murray et al., 2004). Corin provides a relevant definition of culture in relation to this point and the current study aims:

Above all a system of meanings and symbols. This system shapes every area of life, defines a worldview that gives meaning to personal and collective experience, and frames the way people locate themselves in the world, perceive the world, and believe in it. Every aspect of

reality is seen as embedded within webs of meaning that define a certain world view and that cannot be studied or understood apart from this collective frame (1995, p.273)

Previous research within psychology examining culture has often been limited in exploring psychological differences between ethnic groups and less regarding the cultural composition of identity and psychological processes. This has important implications in examining individual as well as group experiences within ethnic sub-groups. For example a closer examination of more intricate psychological processes observed within the target population through a wider level of analyses may reveal additional features that add meaning to the overall experience of taking part in the CAHPI. Murray et al., (2004) argue mainstream health psychology fails to focus on subjective experience and meaning of illness, which may be influenced by social determinants at macro-level. Due to the growing interest of examining a deeper level of understanding within cultural groups and communities, further support has been shown in the development of this more critically focused health psychology discipline, with a more intricate emphasis on culture. Hence, community health psychologists often adopt critical and constructionist epistemologies and utilise qualitative methodologies such as interpretative and discursive approaches to examine subjective experiences (Marks, 2002; Murray & Campbell, 2003; Murray, 2004). These provide an opportunity to give voice to disadvantaged people's experiences and provide a platform to challenge dominant medical and societal discourses often used to oppress them (Murray & Chamberlain, 1999). Relatedly, community health psychologists adopt an ecological perspective in which individuals are seen as embedded within small systems (micro-level), which are nested within larger systems (meso-macro-levels). It is argued, defining problems at the individual level serves to blame the victims, even if unintentionally.

Community health psychologists highlight that gaps remain in developing theoretical frameworks that conceptualise the psychosocial mediators between participation and health, and in developing suitable methodologies for conceptualising these. To help understand this problem a distinction between 'indirect' and 'direct' participation is suggested (Campbell & Jovchelovitch, 2000). Indirect participation refers to collective action which may show to improve health status. This is thought to be achieved through the development of community groups capable of serving as a powerful source of social support, which may protect individuals from health damaging effects

brought on by tensions experienced through stress. Direct participation in such initiatives may increase the possibility that individuals will engage in health-enhancing behaviours through a variety of processes. For example, 'consciousness raising', is thought to be a useful process for increasing a group's critical consciousness of their social roots relating to their disadvantage. It is thought this process may enable disadvantaged groups to better understand the obstacles they may need to address if they are to succeed in constructing contexts that are more likely to support and enable them in the struggle for improved health. This approach suggests participation in collective action may also increase an individual's confidence and empowerment in their ability to take control of their lives in general and their health in particular; in the likelihood they will act in health enhancing ways (Campbell & Murray, 2004).

Community health psychologists argue that small scale local efforts to bring about change at the level of face-face groups of individuals, families or peer groups restricts any meaningful progress to be made by the wider structural and institutional forces. Such analyses covertly blame local community members for problems whose origins lie outside of their power and control. By locating the responsibility for health problems within local marginalised communities, such analyses are thought to serve as a smoke screen for governments who seek to increase spending cuts on such efforts (Campbell & Murray, 2004, p.191). Effective community psychology is viewed as one whose theory and practice draws attention to challenges of real power imbalances that generate health inequalities. Many of these power relations often lie beyond the boundaries of small local communities and beyond the influence of small groups of marginalised community members. For them, the mission of community psychologists involves not only psychosocial empowerment of deprived groups, but also transformation of broader processes and structures that maintain the social inequalities that often undermine opportunities for health (Campbell & Murray, 2004). Additionally, on a local level, empowerment involves the concept of people centred development, and emphasises the development of people's skills and capacity to make decisions, as the current study aims to discover. However, it is also important to note in relation to the current study aims, that empowerment also needs to be considered at the group and community level to be effective, as well as examining the broader process and structures that maintain social inequalities.

Moving beyond psychosocial mediators, the role of alliances and partnerships in creating healthy communities is also viewed as an important process. Community development approaches to health are often employed to promote psychosocial changes. They also aim to develop alliances and partnerships between members of marginalised groups and those in power to assist in addressing the social circumstances that undermine their health (Campbell, 2003). In summary, community health psychology offers an alternative approach to mainstream health psychology, in providing explanations regarding the socio-cultural factors that underlie health and illness in marginalised groups. Consequently, it may help offer additional insights of psychological processes underlying the development of the target behaviours within the target population in the context currently examined

2.1.1.2. Exercise psychology

Community psychology and community health psychology offered an awareness of how the broader socio-cultural context influences the processes that sustain health inequalities in marginalised groups. Additionally these approaches may explain the socio-cultural mechanisms that promote psychological factors such as confidence and self-efficacy that underpin health enhancing behaviours, including physical activity and healthy eating. This section will discuss important developments within the discipline of exercise psychology (Smith & Bird, 2004), which specifically examines health enhancing physical activity (HEPA), also shown to have a bearing on wider health enhancement issues and disease prevention.

Exercise psychology recognises that there is a general consensus among credible authorities including the medical profession that increases in exercise levels could also produce worthwhile public health benefits (Nelson, Rejeski, Blair, Duncan, Judge, King, & Castaneda-Sceppa, 2007). For example, it is argued that the link between increased exercises, specifically certain types of such as aerobic exercise, reduces the risk of CHD (Kohut, McCann, Russell, Konopka, Cunnick, Franke, & Vanderah, 2006). It also recognises additional benefits of undertaking exercise such as physical functioning and mental-well-being (Biddle & Fox, 1989; Fox, Stathi, McKenna, & Davis, 2007; Windle, Hughes, Linck, Russell, & Woods, 2010). Findings within this discipline may have the

potential to increase physical activity behaviour in the target population. For example a number of issues relevant to the current study have been examined by exercise scientists such as those shown to facilitate or hinder physical activity and exercise in the elderly population (Taylor, Cable, Faulkner, Hillsdon, Nacici, & van der Bij, 2004). Additionally issues relating to the design of interventions to increase the uptake of physical activity, and how to translate findings in practice (Blamey & Mutrie, 2004) may be useful (these are discussed in section 6.3: Implications for practice). Furthermore, the significance of exercise as a health – related behaviour, and the examination of motivational problems associated with adopting and maintaining physical activity in this population, may also be beneficial. In this respect exercise psychology research could provide some useful insights to guide public health initiatives, and potentially increase exercise related behaviour in the target population.

Taylor et al., (2004) conducted a multi-disciplinary review consisting of evidence from descriptive, efficacy and effectiveness studies concerning physical activity with older people, defined as those aged over 65 years. Issues such as levels of fitness, including strength, flexibility and functional capability, and measures of physical activity involvement decline with age, and the extent to which this is due to the biological aging process or inactivity were examined. A particular area of interest for exercise scientists has been to differentiate between how the natural aging process contributes to functional decline and how much is concerned with avoidable change due to physical inactivity or sedentary behaviour. Taylor and colleagues examined implications for these issues within the context physical health, physical functioning, mental health and well-being and quality of life.

The prevalence of physical activity data in older adults aged between 65-69 years in intervals of 5 years up to 85+ in England was examined on cross-sectional data obtained from the 1998 and 2000 Health Surveys for England (HSE) (Department of Health, 2000, 2002). Walking was shown as the most common physical activity for all older adult sub-groups, and considered the most amenable to change (Department of Health, 2000). Overall it was concluded that fewer older adults undertook levels of physical activity, particularly walking, that produced worthwhile health benefits, and similar observations were noted for older adults aged 65-74 years. A stark decline in physical activity was also noted from the age of 75 onwards. The recent National physical activity guidelines produced by the chief medical officers of England, Scotland, Wales and Northern Ireland, (Department of Health,

2011), are same as those mentioned by Taylor and colleagues. It recommends adults aged 19-64 years should aim to be active daily, and over a week, physical activity should add up to at least 150 minutes of moderate intensity activity; described as brisk walking, gardening or housework, and undertaken in intervals of 10 minutes or more. The intensity of such activities refers to the rate at which they are performed, or the magnitude of the effort required in performing them. It is useful to note that intensity of different types of physical activity vary between individuals, and may depend upon previous experience and relative levels of fitness (World Health Organisation, 2017). The National guidelines also emphasise that older adults should minimise the amount of time spent being sedentary for extended periods. These guidelines were also recommended for older adults aged over 65 years. Low levels of physical activity for older adults aged 65 years and over have also been shown from more recent data (British Heart Foundation 2015, p.16). However, Taylor et al., argue recommending specific levels of activity for older adults can be contentious, due to the large variations observed during the aging process, and capacity to engage in physical activity because of disability, also noted earlier by WHO (2017). In view of trends to an older and less active population in general, and that physical inactivity is implicated as a major risk factor in the development of CHD in the target population, studies from exercise psychology exploring the relationship between aging, the cardiovascular system are considered. Studies examining the effect that physical activity interventions have on the cardiovascular system and associated benefit in reducing the risk of developing such diseases are explored.

The aging process is associated with progressive deterioration in the cardiovascular system that results in reduced cardiac outputs (Harridge & Lazarus, 2017). This process results from structural and functional changes in both the central and peripheral circulation. The combined changes are thought to lead to an increased struggle to discharge blood to the heart, and an altered cardiac function that includes decreased heart rate. Independently, the changes are thought to be fairly subtle, but combined, they contribute to decline in maximal oxygen uptake and cardiac performance observed during maximal exercise in older adults (Lakatta, 2003). However, interpretations of age related decline in endurance capacity is thought to be problematic due to generalised decreases in levels of physical activity, the increased prevalence of underlying CHD, and changes in body composition

observed with aging (Taylor et al., 2004). Nevertheless, some studies suggest seemingly healthy individuals experience decreases in endurance capacity and functional capacity of the cardiovascular system with aging (Mazzeo, Cavanagh, Evans, Fiatarone, Hagberg, McAuley, & Startzell, 1998; Pimentel, Gentile, Tanaka, Seals, & Gates, 2003). Evidence shows that the capacity of the cardiovascular system to adapt to endurance training load is not affected by age, and that age related changes can be reversed by increasing levels of physical activity in this population (Taylor et al., 2004).

In addition to physical health, the loss of muscle mass is widely recognised as one of the main determinants of musculoskeletal frailty and reduced mobility, and is shown to increase with age from about 13 - 24% in persons aged 65-70 years, to over 50% of those older than 80 years. The most obvious adverse effect of muscle loss associated with aging, also referred to as sarcopenia, is strength and power. This impacts on the functionality relating to most daily activities, such as displacement of body weight during walking or rising from a chair, require the generation of power rather than strength alone. The loss of muscle strength is thought to be greater than loss of muscle size. Physiological factors are shown to contribute to this occurrence (D'Antona, Pellegrino, Adami, Rossi, Carlizzi, Canepari, & Bottinelli, 2003). However some evidence suggest regular resistive exercises can be effective in increasing muscle mass and strength, even in the very old. Depending on various factors such as age, gender, mode, intensity and frequency of training, level of initial fitness, increases in muscle strength have been observed (Rodgers & Evans, 1993). Additionally, physical activity, particularly strength training, has shown to be effective in reducing incidence of falls (Gillespie, Gillespie, Robertson, Lamb, Cumming, & Rowe, 2003) although further research is required to determine if these effects can be sustained.

Having considered evidence linking some forms of physical activity with potential beneficial health effects, physical activity and exercise related issues have largely been viewed from a physiological perspective. Research has mainly focused on the physiological functioning as the body improves its physical status. It is argued that this overt physiological effect or 'product' approach fails to consider that physiological changes and health benefits are dependent upon the 'processes' underlying regular exercise behaviour (Biddle & Fox, 1989, p.206). The acknowledgement that

exercise is an overt behaviour, underpinned by motivational factors, has stimulated research viewing exercise from a psychological perspective (Resnick, & Spellbring, 2000; Schutzer & Graves, 2004; Nelson et al., 2007). Furthermore, evidence suggests that the process of exercise can bring about both short and long term psychological benefits, which may play an important role in facilitating motivation, and may also contribute to mental health and overall well-being (Bauman, Merom, Bull, Buchner, & Singh, 2016).

A number of issues have been investigated considering the role of physical activity from a psychological perspective. For example, it has been suggested that depression plays a powerful role in the quality of life in the elderly (Copeland, 1999). Depression has shown to increase the risk for cardiac mortality in individuals with and without cardiac disease at baseline (Penninx, Beekman, Honig, Deeg, Schoevers, van Eijk, & van Tilburg, 2001). Depressive symptoms have also shown to have an impact on well-being and disability in older people (Penninx, Leveille, Ferrucci, van Eijk, & Guralnik, 1999). Due to such findings, the role physical activity may play in reducing depressive symptoms in older adults has received much attention. Epidemiological studies investigating exercise and depression in the elderly have generally reported an inverse relationship between level of physical activity and depression scores (Ruuskanen & Ruoppila, 1995; Hassmmen, Koivula, & Uutela, 2000), with physical activity viewed as a possible protective function against developing symptoms of depression (Lampinen, Heikkinen, & Ruoppila, 2000). Additionally, meta-analytic and experimental studies, including randomised controlled trials (e.g. Blumenthal, Babyak, Moore, Craighead, Herman, Khatri, & Doraiswamy, 1999; Singh, Clements, & Singh, 2001), consistently reported large antidepressant type effects for exercise in adults diagnosed with clinical depression (Biddle & Faulkner, 2002). However, some concern has been raised regarding the use of physical activity as a clinical intervention (e.g. Burbach, 1997), reviews generally conclude that physical activity has beneficial effects on mild to moderate depression (Faulkner & Biddle, 2004; Craft, 2005). In relation to dose response, public health recommendations for aerobic exercise have shown to be an effective intervention for mild to moderate major depressive disorder (Dunn, Trivedi, Kampert, Clarke, & Chambliss, 2005). Although such evidence appears promising, some researchers and mental health professionals are unclear about how physical activity affects mental health. Despite various

mechanisms being suggested for this relationship, there is little agreement (Crone, Heaney, Herbert, Morgan, Johnstone, & MacPherson, 2005; Crone, Smith, & Gough, 2006). This has largely been due to methodological and ethical problems of researching specific mechanisms, and as such, no unified mechanism has been verified (Daley, 2002; Carless & Faulkner, 2003). It has been suggested that a combination of physiological, biochemical and psychosocial aspects may be responsible (Biddle & Mutrie, 2001), although evidence suggests that the actual process of exercising, opposed to the exercise itself, is influential in instigating various mental health benefits (Crone et al., 2005). For example Crone and Stembridge (2007) highlighted the importance of social interaction opportunities reported by participants whilst exercising influential to mental health.

In relation to broader psychological well-being issues, national survey data from England show that positive mood, defined as global set of affective states in individual's experience on a daily basis, is more common in frequently active older adults than those displaying more sedentary lifestyles (Skelton, Young, Walker, & Hoinville, 1999). Biddle & Faulkner, (2002), concluded clear effects were observed for enhanced psychological well-being from physical activity in older adults. In relation to cognitive functioning, epidemiological evidence has also shown that physical activity may be associated with the prevention or delay in the development of Dementia and Alzheimer's disease (Laurin, Verreault, Lindsay, MacPherson, & Rockwood, 2001). Also from a psychological perspective, studies have shown opportunities for social interaction by engaging in physical activity initiatives, as noted earlier can be important, and viewed as a motivating factor for older adults (Finch & Britain, 1997). This may help to overcome the effects of social isolation often experienced by the elderly in general as well as provide some potential for increasing the uptake of physical activity amongst individuals in marginalised communities such as those examined in the current study.

Apart from objective indicators of physical functioning, subjective indicators have also been investigated as underlying motivational factors for participating in physical activity initiatives. Reviews by Rejeski and Milhako (2001) and Spirduso and Cronin (2001) highlight the importance of an older person's self-efficacy to exercise or engage in activities of daily living, as a critical indicator of health related quality of life. For example studies have shown low self-efficacy is a significant determinant of functional decline with chronic disease (Rejeski, Miller, Foy, Messier, & Rapp, 2001),

risk of falling (Tinetti, Speechley, & Ginstler, 1988), and future engagement in physical activities. Physical activity initiatives that aim to increase self-efficacy as a mediator of exercise behaviour, through cognitive-behavioural strategies have shown to be successful in changing behaviour (King, Pruitt, & Phillips, 2000). Such findings have important implications for preserving and maintaining overall independence for the elderly in general. In summary, the collective findings discussed from the discipline of exercise psychology relating to the many physical health benefits as well as mental health and well-being benefits in the elderly population, could potentially have important implications in designing interventions to increase physical activity for the target population.

In view of the explanations provided by a wide range of theoretical disciplines regarding the development of the target behaviours, the following section will review a range of studies examining the prevalence of physical activity specifically within the target population. It will consider the extent the explanations offered, provide some insight regarding the low levels of physical activity observed.

2.1.2. Prevalence of physical activity in South Asian Immigrants and Punjabi Sikhs.

Despite being viewed as an independent risk factor in the development of CHD, and key contributor of DM, low levels of physical activity have consistently been shown in South Asians compared to their host country counterparts in general. Both quantitative and qualitative research methods have been used to assess these prevalence levels, as both ask different and often complementary questions regarding the topics being investigated (Lyons, 2011). For example, Babakus & Thompson (2012) recently conducted a mixed methods systematic review to assess physical activity levels in South Asian women living in western societies including the UK. The aim of the review was to understand the contextual factors that influence physical activity related behaviours in this population. Studies spanning over 30 years were reviewed, and included a range of quantitative and qualitative designs. The main findings from the quantitative studies broadly showed that lower levels of physical activity were found in South Asian women compared to South Asian men and to white Europeans living in the UK. However, making valid conclusions from these findings as previously mentioned was shown to

be problematic due to a number of factors including the use of non-standardised measures. For example, the use of self-report surveys to assess levels of physical activity in general has limitations regarding recall bias and possible misinterpretation of questions. This is liable with participants who have poor English language and literacy skills as indicated in Babakus and Thompson's review. Relatedly, despite some studies in the review reporting the use of validated questionnaires, the validations were based on white populations, making them unsuitable for South Asians. Additionally most quantitative studies included in Babakus and Thompson's review presented minimum information regarding the translation of surveys into the appropriate languages. This may have impacted on the meanings interpreted by participants. Meaning and the concept of 'meaning making' of particular events is said to be influenced by the cultural milieu in which it takes place and is directed by different kinds of narratives, in this case the research instruments provided within a particular context (Smith, Flowers & Larkin, 2009, p.194). Studies included in Babakus and Thompson's review did indicate that English language and literacy skills were limited in some South Asian sub- groups. Therefore, the incongruity between the information provided in the measures, and the participants understanding of it, may have led to partially inaccurate and/or misleading responses. It has been recommended that efforts should be made to make the translation processes undertaken for data collection procedures in future studies more transparent (Temple & Young, 2004). For example in relation to the Babakus and Thompson's review findings, terms such as "physical activity", "vigorous", "moderate", "exercise", etc. have distinct meanings in the English language and can be difficult to comprehend by those whose have limited language and literacy skills. Finally regarding weaknesses relating to the quantitative findings in the Babakus and Thompson's review, it was shown that making direct comparisons of physical activity across studies was difficult due to the domains of physical activity measured as well as the methods used to assess them. For example, the majority of the quantitative studies measured leisure time related physical activity. It was argued that South Asian women may not engage in this type of physical activity often but participate in more household related activities, again providing misleading information. Nevertheless, despite the misrepresented, limited and often missing information shown in the quantitative studies reviewed, general indications showed lower prevalence of physical activity in South Asian women in comparison to South Asian men and to white Europeans.

The qualitative studies examined in Babakus and Thompson's review revealed mixed findings relating to knowledge and awareness of physical activity in the target group. These findings were shown to result from the varied methods of data collection, sample characteristics and size, and as well as the research focus adopted. The majority of the qualitative studies addressed the barriers and facilitators to physical activity, presenting little agreement between them. These disagreements were noted to result from the possible misrepresentation of the term 'South Asian' used in the studies. As previously noted, this expression often fails to reflect the subtle differences deeply engrained between and across these diverse sub-groups and their related socio-cultural practices (Sidhu et al., 2016). Although inconsistent findings are viewed as a limitation for researchers advocating the use of quantitative designed studies, researchers who prefer qualitative approaches take the opposite view. These inconsistencies are seen to be thought provoking in emphasising the importance of heterogeneity observed within the different South Asian sub-groups, as addressed in the current study. The significance of heterogeneity is sometimes overlooked by the need to look for generalisations within the data, and misinterpret the fundamental aim of qualitative research, which is to understand specific factors that make up social reality (Willig, 2013). In relation to Babakus & Thompson's review, the low prevalence of physical activity shown in South Asian sub-groups, as well as in the Punjabi Sikh population examined, may have been attributed to a range of social factors such as birthplace, religious beliefs, and other daily socio-cultural practices and norms.

Another important dimension to qualitative research is the notion of individual 'lived experience'. This term is synonymous to a specific, dynamic qualitative approach, namely Interpretative Phenomenological Analysis (IPA), which allows a detailed subjective exploration of unique attributes relating to an individuals' lived experience or 'life world' (Smith, Larkin & Flowers, 2009). This focused process allows participants to reveal issues that are meaningful and pertinent to them. A more detailed discussion of this research approach is provided in Chapter 4. In general, researchers advocating the use of qualitative methods also emphasize the importance of using a theoretical framework as a means of assessing the quality of findings from qualitative designed studies (Mays & Pope, 2000). In view of the mixed findings from the qualitative studies reported in Babakus and Thompson's review, few reported the use of a theoretical framework, questioning the quality of the

findings obtained. Nevertheless, despite these shortcomings the overall findings from the review indicated a trend towards low physical activity levels in South Asians.

A more recent population based study (Bhatnagar, Townsend, Shaw & Foster, 2016) examined the physical activity profiles of South Asian sub-groups in UK. It aimed to identify the different domains of activity shown to contribute to overall physical activity levels in South Asian groups in comparison to White British groups and demonstrate how these varied according to sex and age. The study merged the findings from self-reports in the Health Survey for England data collected in 1999 and 2004. The nationally representative surveys provided data from 19476 adults. The total amount of physical activity was assessed across the four domains: walking; housework, sports and DIY. A significant difference was noted between the sub-groups for the contributions of all physical activity types for participants aged below 55 years, with the exception of walking. Despite the limitations of self-reports, the overall findings indicated that South Asians in the UK were more active in some ways that differed by age and sex in comparison to their host country counterparts. The outcomes highlighted the importance in understanding the different ways in which specific sub-groups are active, and age appropriate interventions are necessary for all South Asian sub-groups. The age differences observed in different types of activities were thought to be associated with generational status, with those born in the UK having different cultural experiences from those born in other countries.

It was suggested that findings from Bhatnagar et al.'s study could be used to develop tailored population interventions to increase physical activity levels in adult South Asian sub-groups living in the UK. Although Bhatnagar and colleagues findings are useful in highlighting the different types of activities that can be used to increase physical activity in different age groups, they failed to explain why the differences in the patterns observed existed. One explanation may be attributed to contextual changes experienced throughout the different stages of life, such as health status, leisure time related cultural norms and practices, as well as differences in early childhood. The overall findings from Babakus & Thompson's (2012) review, and Bhatnagar et al.'s (2016) study, suggest that there is potential to develop culturally appropriate interventions to increase physical activity levels in this target group. Working within cultural norms and providing meaningful age related strategies to promote knowledge regarding the benefits of the target behaviour are some ways this could be achieved. Insights from both community health psychology in relation to community development,

and exercise psychology regarding the importance of considering psychosocial processes may also help assist this achievement.

The current study builds on these findings for the purpose of this doctorate in health psychology. A culturally adapted health promotion intervention (CAHPI) was specifically designed by the researcher, to facilitate physical activity and healthy eating behaviours in local South Asian sub-group of elderly Punjabi Sikhs. The intervention was based on a newly developed theoretical behaviour change model, namely the COM-B (Michie, van Stralen, & West, 2011) discussed in more detail in Chapter 3. The initial evaluation of the intervention adopted objective measures to assess the uptake physical activity levels; again details of which are discussed in Chapter 3. However the measures initially adopted, failed to detect any noteworthy outcomes relating to the interventions' utility in relation to increasing both the target behaviours examined. It has been noted that process measures can also be useful to assess the development and evaluation of complex behaviour change interventions as opposed to the exclusive use objective measures in such community based interventions to assess health outcomes (Campbell, Fitzpatrick, Haines, Kinmonth, Sandercock, Spiegelhalter, & Tyrer, 2000). Therefore, in view of the poor outcome measures initially obtained to assess the utility of the CAHPI, the current study was directed to adopt an alternative approach to assess the efficacy of the intervention. By adopting a qualitative design, the present study aimed to provide a transparent account of the processes undertaken to assess the participants' experiences of the CAHPI. It also aimed to address some of the shortcomings outlined in Babakus & Thompson's review regarding the absence of theoretical underpinnings. Therefore the current study adopted a well-established theoretically based qualitative approach, namely Interpretative Phenomenological Analysis (IPA) (Smith et al., 2009) to assess the processes experienced by the participants during the intervention (a detailed discussion of IPAs theoretical basis is found in Chapter 4, in addition to a detailed account of the intervention context, which is provided in Chapter 3). As previously noted, the use of interpretative research methodologies with members of marginalised communities, are encouraged by community health psychologists, as they offer a deeper level of analysis of the phenomenon be explored (Murray & Chamberlain, 2004).

2.1.3. Barriers and facilitators attributed to low levels of physical activity in South Asians and Punjabi Sikhs.

The previous section discussed possible explanations of findings from both quantitative and qualitative studies providing some indication of the low prevalence and types of physical activity shown in South Asian sub-groups differentiated by age. Qualitative designed studies are particularly suited in examining in-depth enquires by exposing specific factors relating to the health inequalities often experienced by such groups (Murray & Chamberlain, 2004; Lyons, 2011). The following section will discuss findings from qualitative studies drawn from multiple theoretical disciplines including medicine, nursing, sociology, and social anthropology. The range of disciplines covered, reveals a number of socio-cultural as well as psychological factors shown to inhibit physical activity related opportunities for individuals from South Asian sub-groups in general as well as elderly Punjabi Sikh immigrants.

Contextual issues relating to acculturation show low levels of physical activity resulting from the immigration process to developed countries. For example, King et al., (2006) conducted a series of grounded theory (GT) studies (Strauss & Corbin, 1990). The authors aimed to describe and explain the shared meanings of how gender and ethno-cultural affiliation influence the process individuals' experience when confronted with the need to make behavioural changes to reduce to the risk of coronary artery disease in a foreign environment. When residing in their home country, and mainly in rural settings, South Asians display less blood pressure and cholesterol related disorders than their host country counterparts (Yusuf, Reddy, Ounpuu, & Anand, 2001). But when they adopt urban lifestyles or immigrate to western societies these disorders escalate and their rates of lifestyle related diseases become similar to those of the host country (Sheth, Nair, Nargundhkar, Anand, & Yusuf, 1999; Yusuf et al., 2001). For example, King et al., (2006) interviewed a small sample of older Punjabi Sikh immigrants residing in Canada using an interpreter when necessary, as many demonstrated poor English language and literacy skills. With regards to increasing physical activity, both elderly Punjabi Sikh men and women reported being more active in their home countries; women venturing to the local shops, often twice a day for groceries, and men walking to central locations to socialise with peers. In the new environments, the distance of the shops and bad weather conditions, resulting in

individuals' being more homebound and socially isolated, limited these opportunities. Issues relating to bad weather have been observed in both Canada and the UK (Lawton, et al., 2006), where large communities of Punjabi Sikhs reside, resulting from the mass migration movement from the Indian Sub-continent during the 1950s and 1960s (Ballard, 1994). Canada's harsh winters may make it difficult to plan or maintain physical activity related behaviours for their elderly Punjabi Sikh residents. Additionally, the presence of co-morbidities commonly observed in older participants such as asthma and arthritis is shown to limit mobility, where beliefs about exercise exasperating illness has frequently been raised (Lawton, et al., 2006; Oliffe, Grewel, Bottorf, Luke & Toor, 2007; Darr, Asin, & Atkin, 2008; Horne, Speed, Skelton, & Todd, 2009).

Becoming less active was portrayed as a normal part of aging, and some participants viewed vigorous exercise as a meaningless activity in the context of their life stage (Darr et al., 2008). Although these latter findings can also be applicable to the general host country's population, they seem more apparent to elderly South Asian immigrants as poor communication and specific socialisation practices present few opportunities to venture outdoors. Further qualitative studies with Punjabi Sikhs also based in Canada, have shown that attending a gym to increase fitness and physical activity as an unfamiliar concept, while walking in the company of others as an acceptable and familiar means of strengthening bonds between peers (Galdas, et al., 2009; Oliffe et al., 2010). However, South Asian women reported the fear of personal safety when venturing out in their local neighbourhoods alone (Lawton et al., 2006), and limited access to open spaces for casual walks (Darr et al., 2008; Grace, Begum, Subhani, Kopelman, & Greenhalgh, 2008), as another barrier to physical activity, further highlighting the feeling of being socially isolated as previously noted (King et al., 2006).

Other socio-cultural barriers shown to constrain the uptake of physical activity in South Asian sub-groups were related to their beliefs such as the fear of appearing egocentric. South Asian families and their communities viewed taking time out to participate in specific physical activity related practices as a selfish act (Lawton, Ahmad, Peel, & Hallowell, 2007). While some studies revealed that South Asian women, who desired to participate in physical activity promoting endeavours, were troubled by the stigma they would receive from other members of their community, as religious teachings were perceived to condemn such practices. Furthermore, mixed – sex facilities such as

swimming and male instructors for gym classes were seen to neglect South Asian women's necessity for modesty, hence further restricting their engagement in physical activity related tasks (Farooqi, Nagra, Edgar, & Khunti, 2000; Lawton et al., 2006; Grace et al., 2008). Family obligations over and above less importantly perceived activities were also viewed as a barrier to physical activity (Sriskantharajah & Kai, 2007). Finally, difficulties conversing in English for South Asian women, made participation in formal physical activity related events outside their homes problematic (Lawton, et al., 2006; Sriskantharajah & Kai, 2007).

Despite the range of factors described to inhibit physical activity in the wider South Asian sub-groups and the Punjabi Sikh community, some facilitating factors have also been uncovered. A recent systematic review of qualitative studies (Horne & Tierney, 2012), synthesising the views and experiences of older South Asian adults in relation to exercise and physical activity, discovered an overriding concept referring to empowering and disempowering contexts. In relation to empowering contexts, the source of health advice for increasing levels of physical activity appeared as an enabling factor. There was some suggestion that individuals may follow recommendations from clinicians, if they believed there were benefits in avoiding the deterioration of health (Darr et al., 2008; Horne et al., 2009). Although it was shown that information to keep active was usually offered once health was compromised or an illness had developed. Participants also revealed that visiting healthcare providers without an important health issue was deemed inappropriate; a belief formed by experiences in their home country, and steps to prevent illness was an unusual concept (Olliffe et al., 2010). Providing meaningful and understandable information about the true implications of physical activity was also seen as a means of motivating individuals, as this was viewed as a shared understanding and fundamental to religious practices between South Asian sub groups in this study (Galdas et al., 2007; Grace et al., 2008), contrary to the view shown earlier (Farooqi et al., 2000; Lawton et al., 2006).

Combining physical activity with self-monitoring of physical health symptoms such as blood glucose levels has shown to provide an immediate sense of achievement; visibly seeing the blood glucose readings decline encouraged individuals to continue being active (Bedi et al., 2008). Similarly, some individuals valued having their heart rates monitored during integrated exercise activities of cardiac rehabilitation programmes, as it seems to reinforce safe intensities of exertion (Galdas et al., 2007). These findings correspond with Michie, Abraham, Whittington, McAteer &

Gupta's (2009) study, who advocate that self-monitoring can be effective for encouraging physical activity, when paired with goal setting and social support. Finally, peer support has also shown to be important for some participants, in relation to facilitating and consequently adhering to physical activity programmes. The development of group norms through peer support has shown to instil positive benefits by inspiring group members to be active (Galdas et al., 2007; Horne, Skelton, Speed, & Todd, 2010).

Nevertheless, despite the potential positive psychological aspects attributed to peer support, and group norms in some South Asian sub-group members, these have also been shown to act as barriers to undertaking physical activity. For example, in one study, a Muslim female participant reported feeling uneasy walking unaccompanied, as it was culturally inappropriate for women perceived to be active (Darr et al., 2008), as they had not been socialised to spend time out-of-doors in their younger years (King et al., 2006). Some participants reported hesitation to attend group sessions with fellow community members, in fear people would gossip about them (Lawton et al., 2006). However, for some participants, community support was viewed as a facilitating factor, in both informal and formal health promoting behaviours (Galdas et al., 2007). The current study builds on the findings relating to peer support, by recruiting a small sample of participants displaying similar characteristics relating to age and acquaintance from a local Punjabi Sikh community.

2.1.4. Barriers and facilitators attributed to healthy eating practices in South Asians and Punjabi Sikhs.

As previously noted, engaging in healthy eating behaviours has also shown to lower the increased risk of developing CHD and DM, and their subsequent health impairing consequences (Warburton et al., 2006; Darr et al., 2008). Again, this area has been widely researched using qualitative designed methods to uncover factors that inhibit or facilitate eating practices in this target group. Punjabi Sikhs have strong family links from social networks with members from their communities, and participating in religious events and preserving cultural traditions over time are highly common (Trans, Kaddatz, & Allard, 2005). Although some traditional Punjabi diets contain high proportions of

fats and sugars (Varghese & Moore-Orr, 2002), they also include wheat and vegetable based dishes and fresh fruits (Kittler & Sucher, 1998). The use of natural ingredients including onions, garlic and ginger to combat digestive and stomach complaints, as well as colds and flu are also common among Punjabi Sikh immigrants (Sandhu & Heinrich, 2005). The Sikh faith combines food provision into worship practices, and to some extent influences what people eat and drink. Pivotal to community life for many Punjabi Sikhs is the 'Gurdwara' (Sikh temple), where traditional foods and beverages are consumed. Following worship practices, a sweet food referred to as 'kara prashad', blessed during the worship process, made of clarified butter, flour, sugar and water is routinely offered to all community members. Following this, members proceed to the 'langar hall', a free community kitchen, where traditional Punjabi dishes, commonly consisting of wheat and corn -based savoury flatbreads, lentils and vegetables are served (Oliffe et al., 2010). Although fresh fruits and salads are sometimes served alongside the main dishes, and most ingredients used to cook them are healthy, some ingredients and their content such as high salt, sugar, oils and clarified butter combined with the processes used to cook them; mostly frying, are harmful.

Apart from obligations to consume some level of unhealthy foods on a regular basis when visiting the Gurdwara; regarded as a significant part of Sikh life, unhealthy eating practices have also been observed in other common communal and socialisation settings among Punjabi Sikhs and the wider South Asian sub-groups. Lucas et al., (2013) conducted a qualitative literature review examining the health beliefs of socio-cultural constructs underpinning the perceptions related to health behaviours and lifestyle related disease of South Asians in the UK. In relation to eating practices, family expectations were shown to adversely impact on dietary choices, food preparation, and consumption. The significance attached to group norms and social values were shown to act as barriers to encouraging lifestyle changes. Health was considered with food practices, but was entwined with other issues and concerns. For example, insight from studies examining views of South Asian's diagnosed with CHD and DM, felt that changes to their traditional recipes were difficult to implement because the alternative choices proposed from the western diets were seen as less appealing and unpalatable. Some aspects of South Asian cooking practices were positively viewed, such as cooking from fresh ingredients, as previously noted from Oliffe's (2010) study, and suggested such practices should be reinforced (Lawton, Ahmad, Hanna, Douglas, Baines & Hollowell, 2008). Skills required to cook

traditional foods healthily was also suggested in earlier study (Farooqi et al., 2000), with South Asian participants diagnosed with heart disease.

Other communal and socialisation contexts where healthy lifestyles were compromised, related to traditional hospitality practices. Food and health related matters in particular were shown to be influenced by peers or elders and reinforced by their familiarity of socio-cultural norms (Greenhalgh, Helman, & Chowdhury, 1998; Lawton et al., 2008). The influence of social contexts, particularly the opinions of peers and perceived 'significant others', was practiced and valued by their peers. The creation of such networks was often articulated by the offering and receiving of luxurious traditional foods, as well as the communal association of cooking for and with guests for celebrations (Lucas et al., 2013; Cross-Bardell, George, Bhoday, Tuomainen, Qureeshi, & Kai, 2015). Obligations to uphold these deeply ingrained hospitality practices were viewed as essential to avoid offence or alienation from the community, for which they were heavily dependent for socialisation (Lawton et al., 2006). Social expectations were also shown to be highly valued by hosts; accordingly certain standards including food preparation were expected to please guests. Consequently, visiting relatives was also challenging, as healthy food choices were not regularly offered (Stone, Pound, Pancholi, Farooqi, & Khunti, 2005). However, what was accepted as a healthier option; generally a smaller portion of what was available, was perceived less important than the hospitality practices (Grace et al., 2008). It has also be shown that most participants continue to consume traditional south Asian foods, regardless of their damaging effects to those diagnosed with DM. Controlling the intake of traditional South Asian foods was shown to allow a balance between the risks associated to them and isolating themselves from their culture, families and communities. For those participants diagnosed with DM, some highlighted ways they had adapted their diets such as minimising the use of clarified butter for meals cooked on special occasions (Stone et al., 2005).

These deeply ingrained hospitality practices, and responsibilities to uphold them were found across generations and sub-groups. Women participants explicitly seemed caught between a moral conflict regarding individualistic goals of eating healthily, compared to collectivist goals, seen as bestowing shame on the family by eliminating speciality dishes containing detrimental amounts of fats, salt and sugars to their guests. Older women were seen to feel stronger about the pressures to conform, while younger women felt able to resist such pressures (Bhopal, 2002; Grace et al., 2008),

which could be due to the level of education attained in their home or host country. With regards to education and knowledge, King et al., (2006) found no widespread mechanisms in place to communicate the significance of eating healthily or how to make modifications to diets, such as avoiding foods in high fat and sugar content in the Punjabi Sikh community.

2.2. Efficacy of culturally adapted health-promoting interventions (CAHPIs) in South Asians and Punjabi Sikhs

The previous section has discussed evidence from predominantly qualitative designed studies including both clinical and non-clinical samples, of various age, literacy levels and gender from the wider South Asian population, and where possible Punjabi Sikhs. The general themes uncovered highlighted some of the possible barriers and facilitators seen to underpin the perceptions and views of both healthy eating and physical activity related behaviours essential for either preventing or minimising the risk of developing CHD and DM and their related complications (Sahni & Leslie, 2005; Gupta et al., 2006; Lawton et al., 2006). Due to this increased risk, a number of initiatives and CAHPIs have been developed to address this lifestyle related disease burden. As previously noted, culturally adapted or ‘culturally sensitive’ initiatives are described as those that have been modified to increase participation for ethnic minority groups (Netto et al., 2010). There is some agreement that it is imperative to address deeply ingrained influences such as those mentioned relating to health behaviours within ‘at risk’ populations such as South Asian and Punjabi Sikhs. Resnicow, Baranowski. Ahluwalia & Braithwaite (1999), differentiate between interventions adapted at ‘surface structure’, and those adapted at a ‘deeper structure’. The former relates to interventions with noticeable features, such as people and language, while the latter refer to interventions that engage with socio-cultural, environmental and psychological forces that influence health behaviours. Resnicow et al., (1999) maintain that although the former increases accessibility and interest of health related messages, the latter have shown to impact on behavioural change.

More recently Netto et al., (2010), conducted a systematic review to establish key strategies used for adapting interventions to reduce lifestyle related diseases. Interventions for preventing CHD,

including promoting physical activity and healthy eating for the wider ethnic minority groups, including South Asian's were included. Seventeen behavioural interventions were identified. The majority were conducted in the UK and the USA. The UK based intervention targeted South Asian sub-groups, while the US based interventions targeted Chinese-Americans. A range of interventions were identified including one to one advice sessions, organised group activities, and media campaigns. Eight out of the seventeen interventions reported a theoretical framework. The majority of interventions identified, revealed some behavioural changes, while others affected changes in health related attitudes or health status. A meta-ethnographic approach to data synthesis uncovered five key principles for adapting behavioural interventions. Each principle addressed distinctive features related to the target populations, which included their linguistic diversity and differential access to information, as well as cultural and religious values and heterogeneity. Each of these dimensions required specific forms of modification. No single study included in Netto and colleagues review identified all of the features relating to the target populations or adapted interventions on the basis of all the dimensions uncovered through the analysis. Therefore the findings suggested that the synthesis undertaken accomplished a conceptual development beyond that achieved in the individual studies through which the guiding principles were developed.

The first key principle identified in Netto and colleagues review referred to the use of community resources to advertise interventions and increase accessibility, utilising ethnic-specific media and local networks. The second principle referred to identifying and overcoming barriers to access and participation by providing transport or keeping the costs of participation down. The third principle denoted the use of communication strategies sensitive to language use and information requirements. The use of bilingual workers was viewed to facilitate this process. The fourth principle specified working with cultural and religious beliefs to endorse or deter behavioural change. The compatibility of health promotion messages with the target groups' religious values and beliefs were shown to promote attitudinal and behavioural changes in taking preventative actions against CHD. The fifth principle denoted accommodating unpredictable degrees of cultural identification. Individuals from minority ethnic groups that held both traditional and the host country's mainstream values were shown to require longer exposure to positive health measures to make behavioural changes. This insight

could be explained by acculturation practices, highlighting the importance of this issue when planning and evaluating such interventions.

The identified principles were thought to provide considerable scope for adapting interventions to increase suitability for their target populations by recognising the multiple dimensions of individuals' lived experiences. These include the recognition of their minority status, socially disadvantaged positions, and cultural and religious affiliations. These identified principles highlight the need to provide a closer match between different aspects of individuals' experiences and the design of intervention characteristics. This supports the theoretical arguments highlighted by Resnicow et al., (1999) and community health psychologists (Campbell & Murray, 2004; Murray et al., 2004) which maintain it is essential to address deep-rooted influences on health behaviour to facilitate behaviour change. However, Netto and colleagues also accentuate the necessity for more nuanced understanding of the association between health-related behaviour and the determinants of those behaviours. For example, investigating the influence of one dimension on health-related behaviour may not necessarily increase its effectiveness. These findings suggest a detailed and in-depth examination to identify particular aspects of culture, which are likely to meaningfully influence health-related behaviour, and the degree to which specific target groups affiliate with cultural norms is required. However, despite the usefulness of these distinct guiding principles to aid the design of health psychology interventions for minority ethnic groups, the absence of explicit rationales relating to the interventions theoretical frameworks examined in Netto and colleagues review, restricts their generalisability and validity.

Due to the limitations highlighted above, the application of cultural modifications, as well as the expertise within health promotion services to influence behavioural changes continues to be debated. Sidhu and colleague's (2015) recent findings examining the application of cultural adaptations add to this debate. They assessed the design, delivery and implementation of a culturally adapted self-management intervention for ethnic minority groups including South Asians diagnosed with lifestyle related diseases. The study specifically focused on the experiences of lay educators as well as the attendees. Lay educators or tutors are described as non-health professionals recruited from the community who may be living with a lifestyle related disease. These individuals may have received some training in self-management, and have some knowledge of cultural beliefs and practices as well

as insights of societal issues facing their communities. Therefore these individuals seem particularly suited in assisting with the delivery of such culturally adapted interventions. The adaptations examined by Sidhu et al., were based on Kreuter & Wray's (2003) findings, which highlight the significance of incorporating targeted health communication for specific groups, as it appears to stimulate more cognitive activity. The strategies outlined by Kreuter & Wray (2003) support Netto et al.'s (2010) and Resnicow et al.'s (1999) findings, that specific and meaningful aspects of an intervention's design are likely to influence behaviour change when adapted to a particular target group's affiliation and cultural norms. There is some overlap between the strategies identified by Kreuter & Wray (2003), and Netto et al., (2010) specifically with regards to: the use of communication strategies sensitive to language use, and working with cultural and religious beliefs to endorse or deter behavioural change. For example health information communicated in the targets groups' preferred language would be perceived to take less effort to process than information presented in a language that is difficult to understand and perceived to require more effort to process.

Sidhu et al., (2015) addresses the limitations highlighted by Netto et al.'s study regarding the absence of theoretical frameworks, by incorporating Abraham and Michie's (2008) taxonomy to describe the behaviour change techniques used, alongside specific cultural adaptations described by Kreuter & Wray (2003). These included the design materials aiming to appeal to particular sub-groups e.g. visual information; presentation of epidemiological data to heighten awareness of health concerns; delivery of information in the targets groups' native language including Punjabi; drawing on the experience of local groups, and discussions of health-related issues in the context of wider social and cultural values. These adaptations were further clustered into two broader categories described as 'specific cultural adaptations', e.g. delivering or tailoring health information to reflect community values, beliefs and practices and 'structural adaptations' e.g. modifying the intervention to encourage attendance and completion. These distinctions were used to assess the utility in facilitating behavioural change in lifestyle disease related risk factors including weight management, promoting healthy eating and physical activity. A mixed methods approach utilising observations of the interventions' delivery, and semi-structured interviews undertaken with the lay educators and attendees, were thematically analysed using a content-based constant comparison method (Charmaz, 1983).

The observational findings from Sidhu and colleagues (2015) revealed the culturally tailored components assisted communication, with the lay educator's cultural awareness leading to closer relationships with the attendees. The group-based design facilitated discussions of the emotional impact of illness, although lacked structure and purpose. Ethnic concordance from the attendee's experiences was largely valued due to language sensitivity, although skills in empathy, understanding, and providing health information were equally valued in non-ethnic lay educators. The overall findings from Sidhu and colleagues concluded that the lay educators provided a number of benefits including nuanced skills and knowledge during the delivery of the culturally adapted intervention. However, it was found that the lay educators encountered some challenges when addressing health beliefs and changing lifestyle practices of the attendees. It was noted that the lay educators would have benefited from further training in: facilitating discussions with the attendees; recognising behaviours requiring change; explicitly highlighting the health benefits of making behaviour changes, and informing attendees how to deal with setbacks. Although these findings provide some support for the utility of implementing cultural adaptations to promote health behaviours in ethnic minority groups, including South Asians, they represent the views of a clinical population. It is important to understand the views and experiences of non-clinical populations taking part in CAHPIs, such as elderly Punjabi Sikhs, as they are shown as being a particularly high-risk sub-group in relation to understanding the links between lifestyle related diseases and corresponding lifestyle related behaviours (King et al., 2006; Galdas et al., 2007; Sidhu et al., 2016). It is also important to identify the processes and methods this sub-group perceive to be meaningful in such interventions to prevent or delay health complications associated with lifestyle related diseases, as the current study aims to address.

Coe & Boardman (2008) is one of a few qualitative designed studies found to assess the views and perceptions of a small non-clinical population of Punjabi Sikhs taking part in a CAHPI, 12 months post-delivery. The study aimed to promote health behaviour change in a culturally sensitive and acceptable manner, by utilising a Sikh temple as a focus. The Department of Health's white paper (2004) *Choosing Health*, highlighted the role of local communities and recognised the importance of established and supportive community networks in positively contributing to initiating and sustaining change. The location of the intervention took place in an urban setting occupying a high residency of Punjabi Sikhs within the West Midlands, UK. The key objectives of the CAHPI were to raise

awareness of the health risks pertinent to the target-group and risks associated to their lifestyles particularly diets, as well as support behaviour change by working together as a community. Alongside the community-based approach, a key focus underpinning the CAHPI was the target groups' characteristics in relation to their learning styles intending to support behaviour change. Malcolm Knowles (1990) adult learning theory specifies the importance of adult learners needing to know the motives to learn something prior to having to learn it. Knowles argues the psychological transition into adulthood becomes evident when individuals become responsible for their decisions, and maintains individuals usually resist situations where the will of others is imposed. Additionally, individuals comprise a diversity and depth of experience, inferring that a group of individuals undertaking a learning activity require recognition for this heterogeneity.

Considering adult learning styles, a variety of culturally adapted strategies were implemented that also resonated with Kreuter & Wray (2003), and Netto et al., (2010) intervention design guiding principles. These included the use of visual aids such as a health presentation delivered by a Punjabi Sikh healthcare professional. The presentation highlighted a realistic approach to health and lifestyle concerns identified within the target group. Mixed media illustrations were used containing personal experiences of bereaved acquaintances and family members to present representative scenarios based on real individuals the target group could relate to. According to Coe and Boardman (2008), this strategy was vital in raising awareness and stimulating interest and understanding of the significance of the need to make health and lifestyle changes, and so was adopted in the former CAHPI study. Other graphical aids used in Coe and Boardman's study included calendars containing images of positive healthy lifestyle features such as diet and exercise, and self-explanatory posters illustrating strong but simple health messages. A range of interactive events were also scheduled over the 12 month period the intervention took place, including a physical health checks, workshops and talks from a range of healthcare professionals spoken in Punjabi and a guided community walk.

Individual interviews and focus groups were adopted for Coe and Boardman's study to elicit the views and perceptions of the purposefully selected sample, which consisted of 3 temple committee members and the Punjabi Sikh healthcare professional, and 13 intervention attendees. A framework approach to data synthesis was adopted. The perceptions and views obtained from both the intervention providers and attendees were generally positive. Both believed the concept of delivering a

CAHPI for the target population was a well-intended idea. The context in which the intervention was delivered; the Sikh temple was perceived positively in relation to both accessibility and acceptability. As previously noted, the Sikh temple is fundamental to community life for many Punjabi Sikhs, due to its day-to-day accessibility by all members of the community regardless of age, gender or religion (Olliffe et al., 2010). The venue is also utilised for discussing issues concerning the local Sikh community, and health was also perceived as an important topic to be addressed in this context. By targeting one particular South Asian sub-group: Indian Punjabi Sikhs, the intervention was able to address their specific behaviour patterns, beliefs and learning needs. For example, the use of clear visual and verbal communication during the health presentation, using shock tactics to illustrate the targets groups' damaging lifestyle behaviours, combined with personally relatable stories delivered by a credible source from their community, was viewed fundamental to their engagement. It also resulted in the community members prohibiting the use of clarified butter in the temple kitchen. Additionally, the stimulation and engagement generated during the intervention may have attributed to the dietary changes reported by attendees at both individual and household levels. With regards to promoting physical activity, the community walk; a short 30 min walk near the venue was positively received, and continued to be a regular feature for the community members 12 months post intervention. Peer support also seemed to be a motivating factor underlying this initiative. The findings from Coe and Boardman's study highlight how health messages can be perceived as a priority through the strategies used to communicate them. The findings also demonstrate how personal relatedness has shown to be a powerful contributing factor instigating behaviour change. The positive engagement and outcomes shown in Coe and Boardman's study could principally be attributed to the carefully considered cultural adaptations identified during the design stage of the intervention, as well as the processes implemented during its delivery.

The overall findings from Coe & Boardman's (2008) study are useful in highlighting strategies and cultural adaptations to overcome some of the specific contextual factors for promoting lifestyle behaviours such as healthy eating and physical activity pertinent to the Punjabi Sikh community. However, it is also important to note that even within specific sub- groups, regardless of their cultural or religious affiliation, contain further complexities such as the differences and similarities concerning the unique characteristics including age, gender, occupation, marital status, and place of birth etc.

These distinctive characteristics influence the way individuals react to their surroundings, for example their attitudes and perceptions towards such types of interventions. As previously noted, elderly Punjabi Sikhs are a particularly high-risk sub-group in relation to understanding the links between lifestyle related diseases and corresponding lifestyle related behaviours (King et al., 2006; Galdas et al., 2007; Sidhu et al., 2016). Demographic variables such as age, marital status, and place of birth were not specified in Coe and Boardman's study; hence it was unclear if the views of individuals with these attributes were represented. These particular members of society portray issues relating to poor literacy, social isolation, reduced independence and poorer mobility that may impact on their health status and hence have different motivating factors to engage with such interventions (Lawton, et al., 2006). However, their elderly status and life stage also means they are likely to be retired have more leisure time and hence seen as a meaningful sub-population to encourage health promoting behaviours (Horne et al., 2012). By examining their experiences of taking part in such interventions, reasonable and meaningful conclusions can be drawn to help bridge the gap of health inequalities within this specific South Asian population, and inform the design and development of future interventions conducive to their unique individual needs.

2.3. Methodological challenges assessing the efficacy of culturally adapted health promoting interventions [CAHPs] in South Asians and Punjabi Sikhs

Quantitative designed studies examining interventions often look at the treatment outcomes to establish their efficacy or effectiveness and generally adopt quantitative measures. However qualitative designed studies assessing interventions often focus on understanding how people experience them, which helps identify other useful or 'active' aspects of an intervention that may lead to better outcomes. Quantitative measures often fail to detect other useful aspects of an intervention, because of the need to evaluate specific outcomes determined at the beginning of a study. Health psychology, and more specifically community health psychology, recognises the importance of understanding individuals' perceptions of and interpretation of their health and illness experiences, and the meanings they ascribe to them (Brocki & Wearden, 2006). The value of meaning in relation to

health and illness issues pertinent to the target population in Coe and Boardman's study were apparent. The content and context in which the issues were presented appear to strongly resonate with the specific target population. The Sikh temple being the main focus provided the opportunity for the target group to instigate behaviour change. Therefore, the consideration of context was shown to be an important precursor to the expected outcomes. Coe and Boardman's findings provide some useful insights of the contextual factors instigating behaviour change from the Gurdwara attendees' group perspective. However, they failed to capture the deeper meanings underpinning their unique individual insights, as the intervention was targeted mainly at the attendees. It would have been useful to discover the hidden meanings underlying the behavioural changes reported at both individual and family level. This highlights the importance of implementing theoretical constructs that relate to particular aspects of behavior change (Michie et al., 2011).. Nevertheless, the end goals of any intervention study are important, and the identification of any specific theoretical mechanisms underlying the processes that facilitate those end goals are equally important. The application of Knowles' adult learning styles theory in Coe & Boardman's study was useful in designing the activities and identifying the contents of the intervention. Community-based approaches often conceptualise active involvement in a project as a developmental process that can be viewed as a specific outcome on its own (Chin, De La Cancela, & Jenkins, 1998), and should be recognised during the assessment process.

Chapter 3: Rationale and description of the current study context

Considering the scarce number of studies focusing on engaging non-clinical elderly Sikh immigrants in health psychology initiatives, as mentioned a CAHPI was recently designed, implemented and evaluated by the researcher for this target group. The CAHPI aimed to fulfil the Health Behaviour Change competency module (Queen Margaret University, 2012). The main purpose of the CAHPI was to provide opportunities for a small local Sikh community the researcher was familiar with, to take part in a structured health psychology intervention in individualised ways. Being from a Sikh background, the researcher had a well-established network of contacts, which were used to recruit the potential participants; more details regarding recruitment strategy are provided in Chapter 4. Using established contacts to recruit participants from marginalised communities seemed more conducive and has been utilised in similar studies rather than using conventional methods such as posters and radio (Sidhu et al., 2016). The participants were recruited from Nottingham; a medium sized city located in the East Midlands in the UK. Within Nottingham, Asians are shown to account for the fourth largest ethnic sub-group, and Sikhs are shown to account for the third largest religious group, making them a visible sub-group within the locality (Nottingham Insight, 2016). Prior to designing the CAHPI, the literature was examined to obtain some insight regarding the most suitable strategies to base the intervention. A recent systematic review (Chapman, Qureshi & Kai, 2013) examined the effectiveness of physical activity and dietary interventions targeted at South Asians. A scarce number of studies were found meeting the inclusion criteria: community or primary care based interventions undertaken in western countries adopting quantitative measures. The methodological quality reported was generally poor due to lack of controls, as well as inconsistency in the measures and outcomes reported, although some objective measures used were shown to reduce weight. Little evidence demonstrated behavioural outcomes, and no indications of theoretical frameworks underlying the interventions were found. Additionally little evidence regarding knowledge and attitudinal outcomes were shown. The inclusion of individual feedback in communities of deprivation seemed important to the interventions' acceptability. The review concluded that potential important insights might be missed if the perceptions and views of the participants concerning their experiences of taking part in

the intervention are not captured. Additionally, it was noted interventions should be theoretically informed to maximise their utility.

3.1 Theoretical basis of the CAHPI design including content and contextual features

Based on Chapman and colleague's systematic review findings as well as comprehensive literature review, the pilot CAHPI incorporated a newly developed behaviour change model referred to as the COM-B model (Michie et al., 2011). The model claims that three essential conditions or components are required to facilitate behaviour change. Many examples of activities and strategies were designed for the pilot CAHPI study, specifically associated with the models components, a few examples are illustrated in Figure 1.

The first main component of the COM-B is 'capability' that consists of two sub-components. The first is 'psychological capability', which refers to cognitive mechanisms involved with processing information. In relation to the former CAHPI study, this can be illustrated by the intention to provide knowledge and information regarding lifestyle behaviours and their health links. The information was communicated in the Punjabi language by healthcare professionals as lay educators, with the intention of being processed in the targets groups preferred language, to help overcome the low literacy problems prevalent in the community. The second sub-component is 'physical capability', which refers to developing practical skills, strength or stamina. This can be illustrated in the CAHPI study by incorporating practical activities such as gentle chair based exercises and the use of pedometers with the intention to promote physical activity, and dietary information and practical cookery demonstrations to facilitate healthy eating.

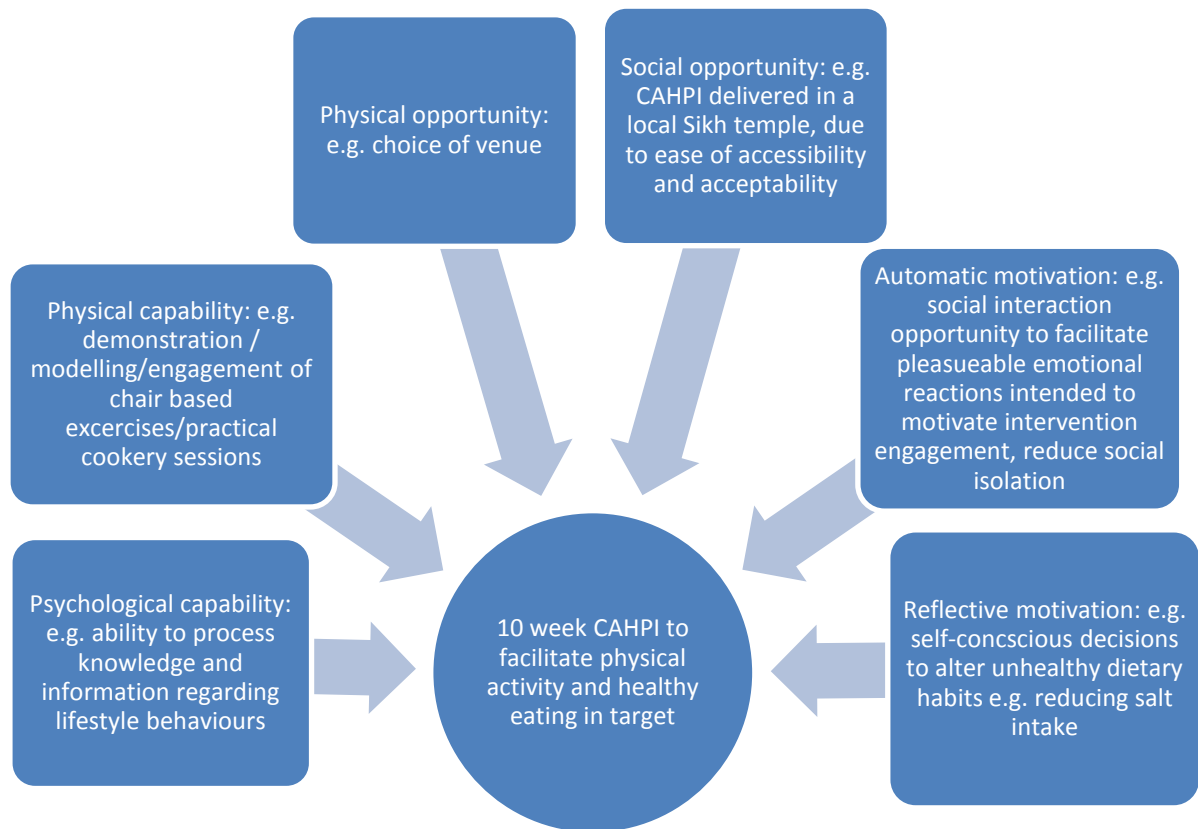
The second main component of the model is 'opportunity', which is also subdivided into two components. The first sub-component is 'social opportunity' which refers to interpersonal influences, social cues, and cultural norms that influence thoughts, e.g. words, concepts that make up language. This can be illustrated by recruiting individuals with similar characteristics such as age (with the exception of one participant aged 49 years at the time the study took place, who expressed an interest to take part in the intervention, and was accepted on moral grounds), health issues, and shared

language, and cultural and religious identities etc. The second sub-component is ‘physical opportunity’, which refers to contextual or physical factors that may facilitate or hinder the desired behaviour. This can be illustrated by delivering the intervention in a local Sikh temple, which was thought to be easily accessible and acceptable by the target group. In view of previous findings (Coe & Boardman, 2008), this venue was thought to be an appropriate context to deliver the intervention.

Finally, the third main component of the model is ‘motivation’, which is also subdivided into two components. The first sub-component is ‘automatic motivation’, which refers to unconscious processes involving emotional reactions, desires, impulses and inhibitions. This can be illustrated by providing a social interaction opportunity to facilitate pleasurable emotional reactions which was intended to motivate intervention engagement. The second sub-component is ‘reflective motivation’, which refers to self-conscious intentions, and evaluations about good and bad decisions. This can be illustrated by self-conscious decisions to alter unhealthy dietary habits e.g. reducing salt intake. The sub-components are designed to capture important distinctions that may impact on potential target behaviours in given contexts and population groups (Michie et al., 2011).

The content of the intervention aimed to resonate with the targets groups’ health and learning needs. The use of visual resources such a health PowerPoint presentation, large print information booklets and a diary to monitor weekly health targets were also used and implemented by the researcher. Physical health checks including blood pressure, body mass index (BMI) and weight measurements were also taken by an English-speaking community nurse. The intervention was delivered midweek, from 12 - 4pm over a 10-week period between September - December 2014.

Figure 1: Flow diagram to illustrate the content and structure of CAHPI based on the COM-B model



The basic premise of the COM-B model maintains that these three components need to interact to generate behaviour. Capability and opportunity can influence motivation, while motivation can only influence capability and opportunity through behaviour. The COM-B model is a simplified version of the theoretical domains framework (TDF) (Michie, Johnstone, Abraham, Lawton, Parker & Walker, 2005; Cane, O'Conner, & Michie, 2012). This framework was developed to simplify and incorporate behaviour change theories to explain the theoretical mechanisms underlying behaviours and guide intervention designs. The original TDF (Michie, et al., 2005) was developed by 32 experts in the behaviour change field, which identified 128 psychological constructs, across 33 behaviour change theories. Both the psychological constructs and behaviour change theories were merged to create the 14 TDFs. Their scientific merit was validated and refined by 36 international experts.

Both the COM-B and TDF aim to identify what factors require modification for the target behaviour to occur by providing a goal for the content of the intervention (Cane et al., 2005). The systematic development of the COM-B model within the discipline of health psychology seemed pertinent to guide and incorporate meaningful initiatives for the proposed CAHPI. It was anticipated that by following the COM-B intervention design process and the guiding principles outlined by Netto et al., meaningful components relating to the target groups' unique socio-cultural needs to facilitate the desired behaviours could be identified. The COM-B model seemed a more comprehensive model; due to its incorporation of 128 psychological constructs, further merged into 14 validated TDFs, to guide the former CAHPIs' design in comparison to other theoretical models applied in previous health behaviour change intervention studies for this target group. For example, the only other CAHPI study identified to promote the target health behaviours in a non-clinical sample from a Punjabi Sikh community was Coe and Boardman (2008). Although the intervention was shown to stimulate behaviour change, the underlying model applied; adult learning theory was quite broad and not specifically designed to promote health behaviours. The COM-B model incorporates specific psychological constructs required to facilitate behaviour change, and therefore seemed more appropriate to design the former CAHPI the participants in the current study took part in.

Nevertheless, despite the rigorous steps undertaken by the researcher to design the former CAHPI, the original evaluation was dictated by core competencies of the behaviour change module, which mainly specified the use of objective measures. These measures failed to identify any significant changes regarding both physical activity and healthy eating related measurements, such as weight, BMI and dietary outcomes. The original findings could be attributed to the short time frame of 10 weeks, in which any meaningful objective outcomes can be drawn. Qualitative findings were also obtained, although these were based on a non-theoretical based survey requiring narrative responses to general aspects of the intervention. Although these were generally positive, they provided surface level reactions, and failed to capture any in-depth meaningful responses relating to the processes involved in the interventions' implementation. For example, the responses provided did not allow for any elaboration to the participants individual lived worlds relating to their health status or personal motivations for attending. The qualitative findings from both Coe and Boardman's and the former CAHPI studies, highlight the importance of focusing interventions for homogenous groups i.e. those

with similar characteristics such as religious affiliation with regards to encouraging engagement with such interventions. However, the findings from both studies also emphasise the importance of utilizing techniques that are able to capture heterogeneity that exist within these groups. It is important to utilise techniques that are able to uncover hidden meanings relating to the participants' individual life world, and how their attitudes, beliefs and perceptions motivate or deter their underlying decisions for taking part in such interventions. Therefore, understanding individual participants' experiences of taking part in CAHPIs is important, as it is likely to lead to better health outcomes.

3.2 Study aims and research question

In view of the previous discussion, the current study aimed to explore in depth how elderly Punjabi Sikh immigrants make sense of a community based intervention to promote physical activity and healthy eating behaviours. The primary research question aimed to explore and understand:

“How is a culturally adapted health promoting intervention (CAHPI), informed by the COM-B model, experienced by older Sikh Punjabi speaking immigrants?”

Chapter 4: Method and description of interview and analysis process conducted

4.1. Research design and methodological framework

The previously discussed qualitative approach initially adopted to assess the former CAHPI the participants in the current study took part in, failed to obtain any meaningful accounts of their perceptions regarding the processes involved in the interventions' implementation. The non-theoretically based narrative survey provided surface level views of the participant's understandings. These superficial findings highlight the need to utilise more sensitive techniques to uncover hidden meanings of the participants' individual life worlds in relation to their engagement of the intervention. The former arguments led to the justification of selecting Interpretative Phenomenological Analysis (IPA) (Smith et al., 2009) as an appropriate methodology to address the current study's aims by the native Punjabi speaking health psychology researcher. IPA is described as an approach to psychological qualitative inquiry that aims to offer insights into how individuals, in a particular context, make sense of a particular phenomenon (Smith et al., 2009, p.46). It was thought that by allowing participants displaying poor English language and literacy to converse in their preferred language, they could better articulate the meanings they attached to taking part in the CAHPI from their individual as well as group perspective. It was thought this unique procedure of obtaining authentic verbal accounts through the use of sensitive techniques, could uncover the hidden meanings underlying individual attitudes and beliefs that either motivate or deter their decisions of engaging with the intervention. IPA permits a combined focus on meaning and experience, with the opportunity of individual and shared aspects of the experience to be explored.

4.2. An Alternative approach

Grounded theory (GT) is frequently compared to IPA, with some researchers failing to see any meaningful difference between the two, due to the many similarities shown across different dimensions of the research process (Smith et al., 2009, p.43). To justify the decision to adopt IPA over

GT, the similarities and differences between the two approaches will be discussed, and highlight how the sensitive techniques of IPA are more suited to address the current research aims.

GT is generally described as a qualitative approach that examines the relationship between theory and research and is useful in discovering processes that exist in a social context (Willig, 2013, p.70). Similarities regarding characteristics, both IPA and GT seek to explore individuals' experiences in the context of the worlds in which they live. Additionally, in consideration of their philosophical and theoretical stance, both IPA and the constructionist version of GT developed by Charmaz (2006), takes an interpretivist approach, which offers greater flexibility of the research process. However, IPA has a phenomenological focus, which aims to describe and explore experiences examined by the data derived from individuals who have lived through those experiences (Smith et al., 2009). IPA researchers often refer to the 'lived experience' and although data is commonly limited to interviews, the findings reported provide rich accounts of the phenomenon examined by drawing on features identified during data analysis. The phenomenological focus aids the understanding of the possibilities embedded within the experience of phenomena. Hence the researcher is committed to understanding the experience of the phenomena as a whole, rather than parts of that experience (Bryman, 2001). Furthermore regarding similarities, GT and IPA are associated with the term 'symbolic interactionism', which maintains that 'meaning' is derived from social interaction and that individual's act towards events based on these meanings. This process aligns with the interactionist approach, where individuals are known to share culturally orientated understandings of their world. Individual understandings are thought to be shaped by similar beliefs, values and attitudes and determine how they behave according to how they interpret the world around them. Subsequently, individuals are viewed as being both 'self-aware' and 'aware of others' and therefore, able to adapt their social interactions and situational behaviour to shape meaning and society. In this sense, the focus lies with the symbolic meanings that are uncovered by individuals' interactions, actions and resulting consequences (Willig, 2001, p.66).

In consideration of methodological processes, GT applies purposeful sampling similar to IPA. However GT aims to uncover universal processes that relate to the phenomenon being examined through a simultaneous process of data collection and analysis. Conversely, IPA aims to explore similarities as well as differences on a case-by-case basis of the participants' unique experiences. Both

IPA and GT include data from a variety of sources that are considered to contribute to theory development. Interviews are commonly used alongside observational notes, diaries as well as past literature and research. However, using a technique defined as ‘constant comparison’, GT compares all the data sources to identify any contradictory cases, which might challenge an emerging theory or ultimately strengthen it. The coding procedures are different for both approaches. For example, GT adopts a single level of open coding to identify actions and processes rather than themes and topics. IPA also utilises open coding, but furthermore employs two additional levels of analysis; linguistic and conceptual to obtain deeper levels of individual understandings of the meanings assigned to the phenomenon investigated, and so seemed more suitable to adopt for the current study.

The concepts of reflexivity and memo writing are also utilised by both approaches to record emerging thoughts and reflections made throughout the analysis for defining categories and relationships found between categories. Unlike GT, IPA recognises data can be influenced by preconceived ideas of researcher, and these assumptions are built into the analysis through the processes of double hermeneutics (Smith et al., 2009, p.34) Furthermore, GT provides general guidelines for undertaking the whole research process, in contrast to IPA that offers loosely defined guidelines to enable the creativity required to uncover deeper levels of analysis. Both GT and IPA are viewed as inductive approaches, commencing with details of the individual cases to develop a theory. Nevertheless, the complex process of theoretical sampling, data collection and analysis are viewed as being extremely challenging for both approaches.

Willig (2013), reasons that IPA’s theoretical grounding and specific suitability for understanding individual experiences in comparison to social processes highlights its distinctiveness. Additionally, IPA’s relatively new and evolving approach, allows for ingenuity and creativity to be explored, in comparison to the prescribed guidelines provided by GT to uncover general patterns in the data. The most common criticism of GT’s methodology concerns its epistemological roots. It is claimed that GT subscribes to a positivist epistemology and that it bypasses queries related to reflexivity (Willig, 2001). For example, it is argued that all observations are made from a distinct perspective; the researchers’ perspective. Hence, the subsequent analysis and questions asked of the data are guided by the researcher (Willig, 2013, p.78).

4.2.1. Ontological and epistemological approach.

As noted, one of the most commendable features of IPA is its dual purpose. The ‘phenomenological’ aspect of IPA means that it is concerned with exploring an individual’s personal perceptions of an experience. The ‘interpretative’ aspect indicates that this cannot always be achieved directly or completely, due to the researcher’s access to the participant’s personal world, and the complexities resulting from the researchers own preconceptions (Smith et al., 2009). It is important to recognise that different ontological and epistemological positions manifest even within a single named methodology. The following sections aim to demonstrate the synthesis of the ontological and epistemological assumptions of IPA with the exploration of the targets group’s experiences of the CAHPI as opposed to providing a description of IPA as a single entity.

4.2.2. Using IPA to explore ‘experience’.

In relation to exploring the target group’s actual participation in the CAHPI, IPA’s focus on a Heideggarian phenomenology, locates ‘experience’ as a fundamental stance. It is concerned with how we focus our ‘attention’ on events in a conscious way; and what intersubjective experiences transpire between a person and the world around them (Landgridge, 2007). Although cognition is linked to the phenomenological underpinnings of IPA, according to Smith (2009), it detaches from psychology’s mainstream cognitive approach, which attempts to understand cognition as an inner mental state. Conversely with IPA, the focus is outwards on conscious lived experience; closer to conceptualisations of cognitive psychology as the science of meaning and ‘meaning making’. In this regard, IPA positions research participants as the ‘experiential experts’ of the phenomenon being examined (Eatough, Smith, & Shaw, 2008), consequently this issue was viewed particularly pertinent to exploring the perspectives of the target group. Exploration on experience in this sense is also required to focus on holistic accounts that take the ‘meaning’ of experience into account. The following section illustrates how the key components of IPA: interpretation, hermeneutics and

phenomenology, and individual analysis, were viewed as the most suitable to address the current research aims.

4.2.3. Interpretative stance: holistic experience.

In accordance with maintaining a holistic view of the targets groups' experience of the CAHPI, two features of the interpretative stance of IPA are claimed to do greater justice to the entirety of the person (Smith et al, 2009). The purpose of these dual components is to firstly, understand the experience from the perspective of participants; characterised as an 'insiders' perspective', and secondly to try and make sense of what the participant is saying by making critical inquiries about their accounts. According to Smith et al., (2009), these two features of interpretation relate in turn to empathic and questioning hermeneutics, but posit they can basically be conceptualized in relation to 'understanding'; in the sense of identifying or empathising, and making sense of. This range of interpretation allows studies to be charted onto a range of disciplines and sub-disciplines. Promoting healthy lifestyle behaviours in marginalised groups in the current study could be represented by both individual and social psychological approaches to health. Due to the wide scope of phenomenon being investigated, and nature of IPA in capturing those wider features, IPA seemed the most fitting methodology to adopt.

4.2.4. Interpretative stance: group experience.

Integral to IPA's hermeneutic phenomenological position, is a key focus on the meanings that experiences hold for participants. In accordance, IPA intends to capture the quality of the individual experience; by trying to untangle the meaning contained within the data obtained (Smith, 2009). Notably, Smith et al., (2009, p.28) highlight that interpretation of meaning involves more than one layer by what they refer to as a "double hermeneutic", the process where participants are trying to make sense of their world, and the researcher is trying to make sense of the participants trying to make sense of their world. Shaw (2010) highlights that instead of seeing the researcher's interpretative

stance as a source of bias; IPA views these biases as both obligatory and inseparable from the research process. This notion is based on the presumed existence of 'intersubjectivity' which assumes that every person, despite being an individual, has a tendency to be receptive to other people, and so a 'collectivity that allows the possibility of mutual understanding' (Smith et al., 2009). In accordance with IPAs convention, instead of dismissing these preconceptions, the process of reflexivity aimed to illuminate the various ways in which the researchers' ideas, experiences and former knowledge affected the meanings that were interpreted. This aspect of IPA was particularly relevant to the fact that being a member of the target groups' community, the researcher was able to embrace these biases present during the analysis and be completely transparent regarding how the interpretations of the individual participants lived worlds were formed and influenced. For example, the researcher had an insight regarding some of the group dynamics that existed between the participants, i.e. they were all familiar with each other. Consequently, this knowledge was used to help initial thoughts and reflections made during the analysis to define preliminary themes and connections discovered between those themes. Additionally, the researcher had a mutual understanding of etiquette practiced between the group members, e.g. seating arrangements and how to address senior members of the community.

4.2.5. IPA and individual experience: phenomenology.

In view of the focus on individuality participating within the CAHPI, the phenomenological focus of IPA is referred to as being 'idiosyncratic', which relates to an individual's personal insights as opposed to generating objective statements about objects or events. In this regard, IPA is underpinned by the epistemological notion that a gap exists between an object and an individual's perception of that object and it is the subjectivity that is of fundamental interest to the research experience (Smith et al., 2009). The potentially dissimilar interpretations of an experience are viewed as equally valid and respected within this approach, in opposition to group level claims for their inability to represent any substantive and specific claims about particular individuals, who may have initially provided the data for a particular study (Smith et al., 2009). In line with IPA conventions, the entire research process is influenced by the accounts provided by participants, and the analysis is centred on the individual case

studies of those subjective accounts (Brocki & Wearden, 2006). The interpretative aspect of IPA is not only concerned with the researchers' interpretation, but acknowledges that participants seek to interpret their experiences into ways that are comprehensible by them; this premise relates to the initial part of the "double hermeneutic" concept. The experience is therefore identified as an event that will have a different meaning for different people. These principles sit appropriately within the context of the current study in relation to the target population's experiences of the CAHPI and focus on individuality.

4.2.6. IPA and collective experience: phenomenology.

The diversity that underpins IPA's epistemological stance, with regards to phenomenology and hermeneutics, demonstrates that the approach to data analysis does not limit itself to a narrow 'either/or' perspective to idiosyncratic and generic features of qualitative data. Rather, a well-thought-through IPA study should illuminate both generic themes in the analysis, as well as the focused 'life-world' of particular participants who have presented their stories (Eatough & Smith 2006). While phenomenology's consideration on individual experiences was viewed as an essential decision to adopt an IPA approach, the opportunity of allowing exploration of collective meanings within the context of the CAHPI, was viewed as equally important to holistic exploration of the targets group's experience and the possibility of uncovering some shared elements of those experiences. From an IPA perspective, the construction of an account that views generic parts of experiences is still viewed as idiosyncratic with regards to its construction by carefully working through from individual cases towards more generic statements, compared to nomothetic approaches that make statements regarding individual cases from large scale cumulative data sets (Smith et al., 2009). The skill of conducting IPA is to represent both individual and shared features of experiences. With regards to the current study, IPA was viewed as the most suitable method due to the prospect of discovering and reflecting upon both commonalities and differences across and within the data (Reid, Flowers, & Larkin, 2005).

4. 3. Novelty

Another related feature of IPA and its relevance to the current study is the concept of novelty. IPA is suitable for exploring uncharted territory, where theoretical foundations for a particular topic may be lacking. Due to IPA's aim to 'explore' the nature of a particular topic through its data-driven as opposed to theory-driven approach, it has the advantage of discovering concepts not previously explored (Shaw, 2010). With regards to the current study, this feature was pertinent in two ways. CAHPIs have the potential to enhance and promote positive health outcomes for the target population. The focus on experiencing such interventions amongst this target group is a relatively new area, as no studies found to date have scrutinized the intricate contextual processes involved in this event. Some descriptive studies have shown perceptions and attitudes of the target population uncovering certain contextual barriers and facilitators of engaging in the target behaviours, to help minimise or prevent complications from common lifestyle related illnesses prevalent in this group. However, findings failed to emphasis or defend any epistemological stance from which they were obtained (Farooqi, et al., 2000; Lawton et al., 2006).

These issues were clearly linked to the CAHPI's aims as they helped to understand the target groups' experiences relating to their holistic health as opposed to focusing on the narrow issues relating to physical health. Although it is acknowledged that the two aspects will be intricately linked, and the meaning of physical health issues will in some way be excluded from the meanings of interventions or vice versa. The focus in this study was altered, with regards to the research question commencing with the intervention as opposed to starting with the health problem. Therefore, in this respect, the study was declared a 'novel' approach to understanding the experience of the CAHPI to promote the target behaviours in the target population

4.4. Procedure

The subsequent sub-sections provide a comprehensive account of the procedures undertaken to address the current study aims. It describes the reasoning underpinning each process and the quality

assurance measures followed to ensure rigour and transparency according to Yardley's (2008) guidelines.

4.4.1. Data collection.

4.4.1.1. Interviews: suitability and research aim.

A range of data collection methods are suggested conducive to IPA e.g. in-depth interviews, diary keeping and other forms of written accounts (Smith, 2009, p. 56). In-depth interviews were considered a suitable method of data collection, as verbal accounts of the participants preferred language: Punjabi, was thought to help articulate the essence of their 'meaning making' of the CAHPI, and express issues they would otherwise find difficult in a foreign language (Lawton et al., 2006; Sriskantharajah & Kai, 2006). This was decided because a majority of the target group had poor English language and literacy skills (see section 4.7: sample characteristics) and conversing in their first language was the participants' preferred option. As the researcher belonged to the same community as the target group, and was fully conversant in both spoken Punjabi and English, this decision seemed appropriate.

Challenges to an interview approach were also considered. The term 'interview' can provoke some apprehension due to its association with formality, for example a job, or home office visa related interview (Smith et al., 2009). This concern was overridden by the view that this method would allow individuals from the target group to freely voice their concerns (Farooqi et al., 2000). In particular, the semi-structured interview was thought to be an appropriate type of interview to adopt. The term 'semi' denotes a collaborative process that regards the participants as the initial experts in conveying their experience, which fits with the epistemological principles of phenomenology (Brocki & Wearden, 2006). IPA also suggests that verbal accounts partly reflect a person's thoughts about a topic, further demonstrating the value of interviews as a method to explore perceptions (Smith et al., 2009).

Although focus groups can also be considered as another useful method of data collection for obtaining verbal accounts, they can compromise the emphasis on detailed exploration of personal experiences (Smith et al., 2009). Additionally, it was thought that a focus group would produce generic characteristics of meaning making, overruling the more idiosyncratic accounts from

individuals, which may be clouded by meanings generated by the focus on the entity of the group itself. Having considered a range of data collection methods, the semi-structure interview seemed more conducive for exploring shared as well as individual meaning making of the phenomenon being investigated in line with homogeneous characteristics of the target group.

4.4.1.2. Interview construction process.

The interview schedule was constructed incorporating different types of questions namely; descriptive, narrative, contrasting and evaluative (Smith et al., 2009) to facilitate comfortable interactions and to elicit detailed accounts of the phenomenon being examined. Initial example questions included ‘can you tell me a little about your health?’ and ‘are you aware of any health promotion services in (name of city research conducted); somewhere where you can go to learn about how to look after your health?’ (see Appendix A: Semi-structured interview schedule). Prompts and probes were also included to further explore any initial responses, and participants were encouraged to discuss issues that seemed pertinent to them regardless of whether they were included in the schedule or not. This type of flexibility was aligned to Smith et al.’s (2009) request for ‘pushing of the boundaries’ in relation to the diverse characteristics of populations studied and the choice of data collection methods used. It also allowed the researcher to contemplate in advance the ways in which the interview may unfold, which in turn, allowed a focus on what the participant was communicating. According to Smith et al.’s (2009) guidelines, a balanced approach that allows the participants to express their views intuitively and restricts them from being directed by a strict line of questioning, encourage the most appropriate responses. The questions constructed were grounded in a number of pertinent processes in relation to the topic area. For example, they were initially centred on the researcher’s personal experience of designing and conducting the CAHPI for the participants. Reflecting on these experiences allowed questions to emerge such as: ‘what kinds of initiatives would participants have generally engaged in to keep healthy?’ and ‘how would their current health status impacts on their daily life? Additionally, having consulted previous literature exploring the target group’s personal experiences of taking part in health promotion (Smith et al., 2009, p.60), as well as discussions with

supervisors and colleagues knowledgeable in the topic and/or method adopted, helped shape the interview questions. The initial set of questions were drafted and refined following further discussions and comments by supervisors and colleagues to identify any unsuitable or problematic questioning.

4.4.1.3. Piloting stage.

Following ethical approval, the interview schedule draft was piloted with a member of the target group who initially took part in the intervention, but withdrew two weeks later. The interview was conducted at the Sikh temple where the CAHPI took place and where the final interviews were to be conducted. The piloting process helped assess the suitability of the interview schedule and rhythm of the questions constructed (Smith et al., 2009, p.68). Two important issues were discovered that might have restricted the flow and richness of the data to be collated. Firstly, this process revealed that the initial general questions seemed to be unclear. Reflecting on this problem, it was thought simplifying the wording and careful probing might have elicited more meaningful responses. Secondly, some ad hoc issues were raised during the discussions that were not followed up. As a novice, the researchers focus was on the responses provided to the initial structured questioning. Again upon reflection and wider reading, neglecting this important personal contribution during the interview process, may have left the participant feeling undervalued, as it may have been a pivotal opportunity to express some underlying issue impacting on the participant's health. Attentive listening, note taking during the interview (Thabane, Ma, Chu, & Cheng, 2010) and focused probing may have enabled any additional points to be followed up systematically, which in turn may have helped the participant feel valued. Building rapport and putting the participants at ease are considered essential features to help elicit rich and meaningful data (Smith et al., 2009, p.64). Therefore, in light of the piloting process, these initial undetected procedures were considered during the final interviews.

4.5. Sampling strategy and recruitment

Purposeful sampling is an essential feature in IPA, so that a homogenous group to whom the research question is pertinent is selected (Smith et al., 2009, p.48). Therefore, potential participants are contacted via referrals from gatekeepers, or as a result of the researcher's contacts. In this study, the latter approach was adopted, as the researcher contacted all 8 participants who originally took part in the CAHPI.

4.6. Ethical considerations

4.6.1. Obtaining gatekeeper consent.

Following ethical approval (see Appendix B: Ethics approval form) by the School of Arts, Social Sciences and Management, the gatekeeper of the Sikh temple where the CAHPI took place (see Chapter 3), was contacted in person to obtain permission to conduct the interviews for the current study. Places of worship have been shown to be ideal to recruit as well as conduct health promotion related investigations for this target group, as this is the main setting for socialisation purposes due to ease of access and familiarity (Bedi et al., 2008; Coe & Boardman, 2008). Lack of privacy and follow up care has reported as being a drawback of utilising these contexts for this population group (Eastwood, 2013). However, the former issue was addressed by conducting the interviews in a small private meeting room, and the latter aims to be addressed by organising a follow-up intervention in collaboration with local public health organisations. The nature of the study was verbally conveyed to the gatekeeper who was conversant in both written and spoken English and Punjabi. A participants study information sheet, (see Appendix C) written in English, outlining the study was also presented for reference in advance of data collection. This aimed to provide an opportunity for the gatekeeper to clarify any issues regarding the study process that may have transpired since the initial contact.

4.6.2. Obtaining participants consent.

Following the gatekeeper's consent, participants were contacted via telephone (details which had been obtained during the CAHPI) to arrange the interviews. Being familiar with the participants (see Chapter 3), made the request to take part in this follow-up study unproblematic. To ensure participants made an informed decision regarding their involvement in the study, given the majority had poor understanding of both written and spoken English language; the aim of the study was explained in the Punjabi language. This method of communication aimed to empower the participants by allowing them to clearly understand the nature of their involvement in the study, and to ask questions or raise any concerns as a result. Obtaining verbal consent as opposed to the conventional written consent suited this target group, although written consent form was also obtained to evidence this process (see Appendix D). Their forthcoming consent could have been seen as a way of expressing their feelings about the CAHPI with the view of hoping to have it re-established. This awareness of possible participant agendas is consistent with Yardley's (2008) recommendation to consider the reasons why particular views are expressed, and allowing this issue to be contemplated is seen to add to the study's transparency and reflexivity.

4.6.3. Right to withdraw, confidentiality and anonymity.

All participants were verbally informed that participation in the study was voluntary, and that they had a right to withdraw at any stage without providing a reason. They were also informed that the verbal data collected via an audio recorder, would be kept confidential. They were informed that any personal details would be anonymised and kept securely on a password protected data file separately from the audio tape recordings and subsequent data analysis. The participants were reassured that the audio-recordings were to help the researcher capture detailed information that would not be possible by note-taking alone, and that all audio recordings would be destroyed after 5 years following completion of the study. The participants were also informed that some parts of the data may be used for publication or presented at conferences to develop and share good practice in this subject area.

4.6.4. Debrief.

The process of reflecting on health related concerns could instigate some distress in a group of individuals that have a poor understanding of the nature of their health problems. Time would be allocated at the end of each interview to verbally debrief participants where they could seek professional help, e.g. from their GP in the first instance, as well as the healthcare professionals involved with the CAHPI, whose contact details they had in the event any concerns emerged. The verbal mode of communication seemed more appropriate than the traditional written debrief, due to their limited English language and literacy skills. The participants would also be provided with contact details of the researchers' supervisor in the event they experienced any misconduct during the research process. All the ethical principles outlined were guided by the British Psychological Society's code of ethics (British Psychological Society, 2014).

4.7. Sample characteristics

A purposeful sample of participants who originally took part in the CAHPI was recruited for the current study. They comprised of 6 older immigrants from a local Sikh community: 3 men and 3 women, with a mean age of 70 years, and 1 woman aged 49 years, as noted earlier expressed a preference to take part in the study, and was accepted on moral grounds. Six of the participants were married to each other, and single woman aged 49 years was unmarried. All participants had immigrated to the UK from the Punjab in India within the past 30 years, and had some health concerns: all had high blood pressure, 6 were overweight, 5 had type 2 diabetes and high cholesterol, and 4 had arthritis. One participant mentioned suffering from indigestion and feeling lethargic. The majority had poor spoken English language and literacy skills, and none were in paid employment (see Appendix E: Table 2). According to Brocki & Wearden (2006), six to eight participants are considered appropriate for postgraduate study, as this size can provide suitable contextualisation. The notion that "less is more" in relation to both participants and number of themes seems suitable, as

larger participant numbers and themes are thought to yield broader and descriptive analysis; which goes against IPA's commitment to idiography (Hefferon & Rodriguez, 2011, p.756). While accidental and confined to the purposeful sampling of the target group, the use of seven participants seemed fitting with Brocki & Wearden's (2006) recommendation, and provided an ideal opportunity for the researcher to explore a greater depth of interpretation. From the researchers' observations, the participants seemed a cohesive group, which may partly have been due to each other's acquaintance, and that they shared similar socio-cultural norms regarding socialisation, health, and language issues and appeared to feel reasonably comfortable with each other. This relates to Smiths and Eatough's (2006) statement that 'inevitably, the research sample selects itself', within the boundaries of the subject matter.

4.8. Data generation and interview setting

The researcher anticipated conducting the interviews within two months following the end of the CAHPI, to maintain momentum of the group's contact and minimise possible attrition. Arranging the interviews proved challenging due to various activities governed by the participants' daily lives ranging from health related appointments, holidays to community related events. Follow-up phone calls linking conversations regarding their pre-occupied health concerns and recent involvement in the CAHPI, helped negotiate a mutually convenient time to conduct the interviews nine months after the intervention had taken place. Three interviews were conducted individually between one of the married couples and the single woman and two were conducted in pairs with the other two married couples. Regular weekly trips to a local market located near the Sikh temple made the interview arrangements convenient for the latter two married couples, therefore these arrangements were appropriate. All interviews took place in a small meeting room at the Sikh temple, due to ease of accessibility. It was also assumed that conducting the interviews in the same setting the intervention took place, might help the participants reminisce about their experiences of the activities that took place there. All participants attended at least 8 of the 10 sessions of the intervention; therefore it was assumed they could reflect on some meaningful incidents that occurred during that time frame.

Preceding each interview, the study aims were reiterated to ensure the participants remembered and understood the nature of their involvement, and at this point, written consent was obtained. All interviews were conducted face-to-face; one interview was conducted in English, while the rest were conducted in Punjabi, the participants' preferred mode of communication. During the interviews, participants were encouraged to provide as detailed accounts of their experiences as possible using the semi-structured interview guide. As a trainee health psychologist, as well as working alongside a diverse range of individuals and groups in previous health related employment contexts in a professional manner, the researchers' interpersonal skills were utilised to elicit detailed accounts of the participant's experiences. Overall, the participants were able to respond fully and articulately to the questions asked. Being intuitive, and communicating flexibly during the interviews were essential elements to the successful method of data collection. Due to the fluid nature of the conversations, the topics outlined in the interview schedule were covered, but not in the order they were written (Smith et al., 2009). The average duration of each interview was approximately 38mins. Despite the short duration of the interviews some meaningful data was obtained for the analysis. All the interviews were digitally recorded, transcribed and translated into English verbatim. As the researcher was unable to read and write Punjabi, the spoken Punjabi words were initially written phonetically in the English language, and then translated to their English language representation. During the translation process, the researchers' main concern was to capture the conceptual equivalence, which preserved the use of metaphors and the meaning intended by the participant rather than the literal translation (further discussed in section 4.10.1). The following section discusses the procedures undertaken during the data analysis.

4.9. The analytical approach

Smith et al., (2009, p.79) maintains there is no prescribed method to conduct IPA, but suggests guidelines for analysis that can be flexibly applied. Accordingly, Larkin, Watts & Clifton (2006) reason that, it is more fitting to recognise IPA in regards to its epistemological stance from which to approach data analysis, rather than seeing it as a specific method. The dual emphasis on

phenomenology and interpretation makes it distinct from other forms of qualitative analysis, namely thematic analysis (Braun & Clarke, 2006). This flexibility reflects Brocki and Wearden's review (2006) of the diverse methods taken on by IPA studies. Conversely, the flexibility aspect can also be viewed as a lack of transparency and rigour, and the authors recommend that a balanced approach should be adopted to avoid such misconceptions in relation to two central concepts; levels of interpretation and reflexivity (Larkin et al., 2006).

4.9.1. Levels of interpretation.

The increasing popularity of IPA within the health disciplines stems from its appeal of the focus on the subjective lived experience, with a risk of it becoming an automated choice to undertake a form of thematic analysis with a little attention to interpretation (Hefferon & Rodriguez, 2011). In relation to examining health related perceptions, Larkin et al., (2006), maintains that the need to 'hear' the perspectives of marginalised groups, may indicate that a purely reflective account is satisfactory. However, Thorne, Kirkham, O'Flynn-Magee, (2004), associates this proposition with the difference between 'free-floating theorizing' and 'critical examination' within operational guidelines. A more distinct impression of IPA is one that aligns with the latter, in that it seeks deeper insights of the participants' phenomenological descriptions, to contemplate the meaning of the phenomenon being explored (Larkin et al., 2006).

4.9.2. The active role of the researcher.

The interactive role of the researcher is a key feature in demonstrating the rigour of the entire research process, including the analysis. It is argued that themes are not passively grounded in the data, but actively discovered through systematic examination by the researcher. Braun and Clarke argue 'if themes 'reside' anywhere, they reside in our heads from thinking about our data and creating links as we understand them'. In this regard, the researchers are seen as 'persons in context' equivalent to the

way that participants are (Larkin et al., 2006), hence the analysis is symbolised as a balance between the phenomenological perspective and the interpretative perspective. Accordingly, Smith et al, (2009) advocates that meanings are not transparent, and need to be obtained through active engagement with the data and a process of interpretation. It is generally argued, that the theoretical preconceptions researchers bring to their interpretations are not made transparent, and this process is viewed as a vital component of IPA that endorses its accessibility and accuracy (Brocki & Wearden, 2006, p.101). In line with these views, the researcher aimed to justify the reasoning underpinning the analytical process, by drawing on reflexive accounts (see Appendix: F) taken in relation to the research paradigm, where inter-subjectivity is thought to influence all phases of the research process.

4.10. The analytical procedure

The in-depth analysis adopted for the current study was carefully directed by Smith et al.'s (2009, p. 79) guidelines, which although not prescriptive, are characterised by six loosely defined steps discussed in the following section.

4.10.1. Steps 1: familiarisation of data: Step 2: initial commenting.

Steps 1 and 2 were undertaken simultaneously; where all the audio taped interviews were individually transcribed; case-by-case in line with IPA's idiographic stance; re-reading to allow close familiarisation with the data set. The majority of the interviews were conducted in the Punjabi language, to help participants articulate their verbal expressions. As mentioned the researcher speaks fluent Punjabi, however is unable to read and write it. Therefore the interviews were phonetically transcribed from the Punjabi spoken language into the English language. To validate this transcription /translation process, a fellow health psychology lecturer/researcher (DC), also fluent in the Punjabi language and written English, transcribed and translated the first interview from spoken Punjabi in the same manner: phonetic English translation (Esposito, 2001; Temple & Young, 2004). Minor inconsistencies between the two translations were uncovered through this process in relation to

dialects spoken between DC and the researcher, and were resolved through discussion, indicating that the overall translation was reasonably accurate.

Following the transcription process, descriptive notes were summarised in the right hand column of each transcript to ascertain any initial meanings and potential interpretations. This involved a phenomenological focus in relation to each of the participant's explicit account of issues that seemed pertinent to them such as relationships, events, places and values, noting connections between any similarities or contradictions. While this was a line-by-line approach, the wider context of the interview was kept in focus to prevent straying from the research question. This process resonates with the hermeneutic circle concept, where a dynamic relationship is believed to exist between the part and the whole on several levels (Smith et al., 2009). This initial coding was highlighted in red (see Appendix H: Transcript 1), to distinguish it and help form the subsequent layers of higher order of interpretative coding; linguistic and conceptual (Smith, 2009, p.88), which were also colour coded for ease of analysis; in green and blue respectively. Linguistic coding involved exploring deeper meanings of the events described through the use of language. This included tone of voice, pauses, laughter metaphors, fluency and use of repetition. Conceptual coding aimed to captivate hidden meanings of the participant's expressions in an attempt to understand their all-embracing meanings, and often involved asking tentative questions of the data in anticipation that they might be explained in other areas of the transcript.

4.10.2. Step 3: Development of emergent themes within individual transcripts.

This preliminary three step coding procedure and a set of reflective notes helped form an initial effort to develop emerging themes, which proceeded to a higher level of interpretation. As the reflective notes stemmed from paying close attention to the reading of each transcript, a connection between the original data and identified themes was expected to be closely linked. This new set of comprehensive notes signified one manifestation of the hermeneutic circle (Smith, 2009, p.91). The principal task of transferring the new set of notes into themes was to create concise statements that captured the essence of the participants' account. This involved identifying patterns and relationships between the reflective

notes and notes on the transcripts. The final themes aimed to reflect the contribution of the participant as well as the interpretations made by the researcher. The themes were labelled with phrases that aimed to capture the psychological essence of the participant's experiences reflecting distinct units of data (Smith, 2009, p.92). This process exemplified part of the hermeneutic circle, where distinct parts of the transcripts were interpreted and further condensed in relation to the full transcripts, as shown in the in the left hand column; highlighted in pink, labelled 'step 3 emerged themes' (see Appendices H and I: coding illustrations).

4.10.3. Step 4: Exploring for connections across the themes within individual transcripts.

The themes for each transcript were initially listed in chronological order, and connections and divergences between them pursued. This process involved mapping and merging these sub- themes according to how the researcher felt they best fitted together. Smith et al., (2009) offers a range of techniques to direct this process; the following were used in the current analysis. Abstraction involved placing similar sub-themes together and developing a new name; a super ordinate theme for the cluster of these sub-themes. A related technique referred to as: subsumption, involved a theme acquiring a super ordinate status itself by attracting a series of clearly related additional themes. Polarization, involved examining any oppositional connections between emergent themes by focussing upon differences as opposed to similarities. Closely, and fundamentally aligned to IPAs epistemological stance, contextualisation, involved identifying the contextual or narrative features, relating to the temporal or cultural aspects identified. This helped frame a more local understanding of issues embedded within the data. Finally, function, in this context was used to examine the interplay of individual and shared meanings, by arranging sub-themes and super ordinate themes in relation to their positive and negative appearances. This technique is thought to be a distinct way of presenting 'the self' within the data, and a focus on language use, may help uncover deeply entwined issues with meaning making.

4.10.4. Step 5: Moving to the next case.

The process outlined above was repeated for the remaining transcripts, and each transcript was treated according to its individual qualities, to uphold the idiosyncratic nature of IPA (see Appendices H: Transcript 1, and I: Transcript 2]. For example, the researcher was mindful of distinguishing sub-themes from the interviews jointly conducted with the two married couples by initialling each sub-theme with a participant number, e.g. P2 and P3. (See Appendix: I).

4.10.5. Step 6: Observing patterns across cases.

A complex process of looking across the super ordinate and sub-themes identified within the individual transcripts followed, to see which ones further connected across the transcripts. During this process, some themes directed the analysis back to other individual transcripts to ascertain whether similar themes had been observed. The techniques outlined earlier helped direct this process. By reconceptualising and amalgamating further connections between the themes identified in all the individual transcripts, five super ordinate themes emerged. Additionally, in line with the focus on idiosyncrasies in, as well as areas of convergence in IPA, two sub-themes evident in only two cases, and not seen to be recurring themes across other cases/transcripts, were retained as part of two super ordinate themes. The first case specific sub-theme was placed in the first theme was originally labelled as: 'A welcomed idea'. One participant raised issues concerning the need to enact health behaviours envisaged by a perceived 'healthy role model person', in relation to being more active and eating sensibly. For this participant, it seemed the CAHPI provided an opportunity to help carry out these behaviours, therefore, 'Opportunity to be a model person' was included. The second case specific sub-theme uncovered, resonated issues concerning ideas to improve a possible follow-up CAHPI, due to the participants' personal experience of the CAHPI. Therefore, 'Suggested programme improvements' was placed in the final super ordinate theme originally labelled 'Request for follow-up programme'. Both these sub-themes added purposeful dimensions to the super ordinate themes and remained true to the idiographic focus of IPA (see Appendix G: Exploring connections across transcripts). In other

forms of analysis, these sub-themes would have been removed due to only belonging to single participants. Reorganisation and conceptualisation of the super ordinate themes and sub-themes continued throughout the analysis. The final super ordinate themes represent particular accounts from the participants that aim to reflect the units of data related to those themes, and are presented in Table: 1 in the following section.

4.11. Validation of final themes

Being familiar with the participants, the researcher was able to present the final super ordinate themes to two participants following the final analysis, who endorsed them as being a “true” reflection of their participation in the CAHPI.

Chapter 5: Results

5.1. Analysis of final themes

By following the procedures outlined above, five mutually exclusive super ordinate themes and eleven sub-themes were identified. The themes represent one possible account of seven elderly Punjabi Sikh immigrants' experiences of taking part in the CAHPI, and aim to illustrate the various dimensions uncovered during the analysis. Taking into account the interpretative nature of IPA, it is important to note that other researchers may have highlighted different aspects from the data. The five super ordinate themes and corresponding sub-themes are explored in turn; each supported with verbatim extracts from the interview transcripts. Some salient words and phrases are referred to in the participants' own language, to help illuminate their perceived expressions and meanings.

Table 1: Final super ordinate themes and sub-themes

1. For our good health, we are getting some help with our health	2. It was in our Gurdwara	3. We all got together, the time passed nicely	4. We are in a different stage in our lives now, we are not the same people we were 10 years ago	5. You can't learn all the things in one day, we need some more
1.1. Reasons for taking part	2.1. An ideal place for this programme	3.1. Learning together and supporting each other	4.1. Life stage	5.1. General lasting impression of the programme
1.2. Not aware of other health promoting programmes	2.2. Useful ways used for communicating health information	3.2. Making sense of needing to eat healthier and to be active		5.2. Suggested programme improvements
1.3. Opportunity to be a model person	2.3. Realisation of new learning			

The participants' personal details were anonymised to protect their identities, and given pseudonyms to preserve their readability:

P1: Arvinder; a 49 year old single unmarried female, with high blood pressure, a little overweight, and poor English language and literacy skills.

P2: Nandeep; a 75 year old married male (to Gurvinder), with high blood pressure, cholesterol and type two diabetes.

P3: Gurvinder; a 73 year old married female with high blood pressure, overweight, arthritis, borderline type two diabetes

P4: Kaldeep; a 73 year old married male (to Manvinder), with type two diabetes, high cholesterol

P5: Manvinder; a 70 year old married female, with type one diabetes, high cholesterol and blood pressure, and arthritis.

P6: Ranvir; an 80 year old married male (to Gurjeet), with type two diabetes, high blood pressure and cholesterol and overweight.

P7: Gurjeet; an 68 year old married female, with type two diabetes, high blood pressure and cholesterol. Overweight, arthritis and chronic back pain.

5.1.1 ‘For our good health, we are getting some help with our health’.

This initial theme highlights some of the reasons participants’ provided for deciding to take part in the CAHPI. Their existing health issues seemed a major concern affecting their daily lives within their current life stage; the CAHPI seemed a way of easing some of those concerns. Remaining independent and preserving their mobility were also viewed as pressing concerns. Additionally most of the participants seemed unaware of other health promoting initiatives within their locality, so the CAHPI seemed particularly welcomed.

5.1.1.1. Reasons for taking part.

Some of the reasons the participants gave for deciding to take part in the CAHPI seem to suggest it was somewhere they could go and obtain some meaningful help and support to improve their health. A sense of gratitude emerged from their initial responses showing the importance of the emotional aspect of the intervention. This seemed to suggest the participants felt cared for because the intervention felt personal:

Arvinder: ‘my thoughts about this was very good, we are getting some help with our health’

Gurvinder: ‘Very nice what happened at the Gurdwara , nice, it was very nice’

Gurvinder: ‘we thought it’s for our good health ‘she’ [referring to interviewer] is going to do this, our health will be good as a result’

Nandeep; ‘for our health, we are going to get some help’

Manvinder: ‘we thought, for our good health ‘she’ is doing this, so our health can be good’

Kaldeep: 'we thought we will be getting some help for our health'

Arvinder is the youngest member of the group; an unmarried woman. She attended the CAHPI on most occasions and seemed keen to take part and enjoy the activities presented. Arvinders' social status can be seen to act as a barrier engaging in activities societal activities alone within her community. Therefore significance of the emotional dimension of the intervention portrays that the participants not only seem to suggest they feel cared for, but also feel they are taking part in something pleasant and socially acceptable. This was echoed by the repetition of the word 'nice' by Gurvinder. The following quotes from two of the married couples: Nandeep and Gurvinder, and Kaldeep and Manvinder, were also positive. The 'she', highlighted by Gurvinder and Manvinder was referring to the researcher. It seemed the researchers' acquaintance with the participants, was viewed positively, and may have provided some hope in helping them alleviate some of their health concerns. The collective responses by the married couples (presented together), taken during the joint interviews, showed agreement with each other's views, and could have illustrated their shared interest in taking part in the CAHPI. A sense of enjoyment experienced during the CAHPI, seemed another motivating factor for taking part, as described below with reference to the CAHPIs' timeframe:

*Kaldeep: 'ah, ok, it was 10 weeks the programme, it seemed like 6 weeks (laughs),
6 weeks'*

Kaldeep seemed surprised at the actual number of weeks the CAHPI delivered was 10, as opposed to the 6 weeks he recollected. The information learned during that timeframe, may have seemed a meaningful and positive way of passing the time. The positive attitude described above towards the CAHPI seems to suggest the participants valued their health, and wanted to improve their existing health status. Being overweight and diagnosed with various health conditions negatively affected their daily living activities, and therefore seemed an intrinsically motivating factor to take part in the CAHPI.

Arvinder: 'My weight was 7 stones, then it went to 8 stones, now it is 9, I want to try and get it back down myself'

Nandeep: 'yeah diabetes I have that problem, 'not too seriously, but ah' I have diabetes, I have to take tablet repeatedly, daily. And this I have blood pressure, and this cholesterol, theses 3 things I take medicine daily; that's daily'

The use of the words 'not too seriously' suggest Nandeep perceives himself to have some control over his health conditions, and by attending the programme, may learn other ways of maintaining this control. Relating to the issue of control, retaining independence and mobility in their current life stage also seem important.

Arvinder: '..I do know if you walk more you will stay healthier, he (doctor), says your bones will keep going. The doctor says if you stay sitting indoors, then water here in your knees (points to knees), will fill up if you stay sitting, you will end up sitting indoors; the sitting person stays sitting. So since then, I go for walks near my house ..I try walking a little more nowhelps me stay in better health..yes its better, my blood pressure is 'ssett' ('in harmony')'

Arvinder shows her understanding of the benefits of walking to maintain good health, and reference made to her doctor suggests importance of the issue and instigation to take action 'I go for walks near my house now'. Additionally, the perception of losing her mobility by disregarding the doctors' advice, may have instilled a sense of fear 'then water here in your knees will fill up', may also have reinforced the importance of keeping active. In this frame, Arvinder shows the benefits of her efforts by use of the word 'ss-ett', said in Punjabi. This has a similar meaning to the English translation as in 'sunset', and may infer her health is in harmony or well positioned due to her efforts.

Ranvir: 'I am (xx) year old, and I keep myself fit'

Ranvir was the eldest member of the group and conducted the entire interview in English. Although both the researcher and Ranvir conversed in Punjabi on some occasions during the intervention, Ranvir seemed to treat the interview as a formal affair. This formality may have led to how he wants to be seen in this context. For example, he conveys he is proud that he still makes an effort to keep active in his current age, which may relate to his need to retain control and independence over his health, and taking part in the intervention was seen as way of doing this. However, Gurvinder and Gurjeet; two married women of similar age and health issues, both show a sense of vulnerability to their level of control by describing their debilitating health problems which seem to restrict their independence and mobility:

Gurvinder: 'my health, my legs, yesterday I had an x-ray taken on my legs (pause)...whenever I sit down in the car, I can't get up easily, 'sauch ni ay' ('I think to myself'), 'mai joor jai gi' ('my legs will stiffen up'), and then what will happen to me? ...That's it I will have to stay sitting'. Yesterday I went to visit my brothers, and my nephews had to get me out of the car (chuckles), my legs suddenly just stiffen up, they give me a lot of trouble. They (doctors) say I have arthritis inside this leg (points to leg)'

Gurvinder: '..also this arm has started hurting ..it hurts a lot 'chilo, chilo karde ye' ('cutting like a knife kind of pain': attempts to describe the pain in her own words), (sighs very deeply) ..at night I can't sleep ...the pain doesn't let me sleep because it hurts so much ...it troubles me so much..here it hurts here (pointing to the top of her right arm) ..then I have to put that gel on ..and then I feel pain free after a little while'

Gurjeet: 'my health is ok, but is not ok, since I had my accident. Before my accident, before this 'bilkaul teek taak sa' ('I was completely fine') in my house, but ever since my accident 4 years ago, I mean since then, my health has become 'karaab' ('bad') because I can't do as much housework as I used to do, and like at

first I used to go out and I was very happy, but now because of this back problem, sometimes I go physiotherapy and things, the doctors have sent me to lots of different places, but they still haven't found out what is wrong. Some say its old age, because now I am xx years old and next year I will be xx years old, and before I used to feel young, but now I'm beginning to feel old'

Both Gurvinder and Gurjeet, describe existing health problems that have come about unexpectedly; through an accident and old age, and poses a sense of fear of not being in control of their mobility and independence. This seems to negatively affect their daily lives. The stiffness Gurvinder experiences unexpectedly in her legs, suggests she feels anxious of not knowing when the pain will arise, and fearful she may be permanently immobilised, and may bring to mind an image to depict that by saying 'I will have to stay sitting'. By pointing to her leg and arm, she wants to show it is a real problem, which negatively affects her life world. Additionally beneath the chuckle seems a deep sense of fear and by attending the programme may acquire some help to overcome this. The graphic description of the severity of the pain she expresses in her arm, along with the deep sigh and reference to the negative effects on sleep, again seems to denote the significance of these health problems in Gurvinders life world. Similarly, Gurjeet also refers to how a recent accident has negatively affected her life world, by restricting her independence, and the happiness she experienced before the event. She seems to contradict herself regarding her current health status 'my health is ok, but is not ok'. By immediately saying 'it is not ok', she seems to reveal how she truly feels, possibly cheated as a result of the accident 'before I was 'completely fine'. The Punjabi phrase 'bilkaul teek taak', refers to the notion of 'completeness', which for Gurjeet, has been invaded. This is further supported by her reference to the following quotes; 'my health has become 'bad', ('karaab'), I can't do as much housework as I used to' and 'before I used to feel young, but now I'm beginning to feel old'. Taking part in the intervention may be viewed as a way of gaining some meaningful support to improve their current health status:

Gurvinder: 'we say to ourselves, we have little life left, so let's keep trying to 'run' (pajaiye) and have 'fun' (nasiye)'

The expressions ‘pajaiyae’ and ‘nasiye’, in Punjabi translates to ‘running’ and ‘having fun’, and this is how Gurvinder envisages herself, and seems to want to make the most of her current life stage. Being mobile is associated with having fun, and she suggests that life is too short and wants to make the most of opportunities available to her to retain her mobility, and taking part in the CAHPI, might be a way of doing this.

5.1.1.2. Not aware of other health promoting programmes.

Most participants were unaware of any similar health promoting interventions in their locality:

Arvinder: 'just here with you, here at the Gurdwara, I haven't been anywhere else.

I really like your programme (smiles), you must start it again'

The smile presented when Arvinder recalled the programme might have momentarily triggered positive memories as her face seems to light up, and the thought of experiencing those positive moments again was followed by her request ‘you must start it again’. By probing Arvinder again if the CAHPI was the only health promotion programme she was aware of, she suddenly recalled initiatives recommended by her GP:

Arvinder: 'yes, in the community centre there are things, but we don't go being on your own'

When asked why she could not go on her own, she replied:

Arvinder: 'Being single you see, you don't like going to places on your own'

It seems even though Arvinder is aware of other health promotion initiatives in her community, to her attending the one delivered in her local Gurdwara was more culturally sensitive and therefore

acceptable to her personal circumstances being a single woman. Gurvinder is also aware of other health promotion initiatives, and being a 'ladies only' event, seems acceptable and taken advantage of:

Gurvinder: 'to keep myself healthy, have to keep some control, sometimes you have it, sometimes you don't. I've joined swimming classes every Friday. On Fridays there is a ladies only class near the Gurdwara, and Tuesdays I go the community centre near my house, they do exercise classes there for your health, a lady, there, there are Asian, Chinese every Tuesday and Wednesday, two days ladies there'

Gurvinder highlights the notion of 'control' and accepts that it is not always possible to have control over her health. She demonstrates her personal efforts to take whatever control she can over her physical health by taking advantage of culturally acceptable provision she is aware of by attending the women only classes near her home. Her personal efforts to look after her health are further demonstrated by her commitment paying a years' membership in advance. It seems the advanced payment has helped sustain her commitment and attendance:

Gurvinder: 'I've paid a years' membership in advance, before it used to be free, but now we have to pay a small amount, since giving the money, then have to go and you begin to get interested, yes now I go every...I don't miss it now, only...if some event comes up, otherwise I don't miss it. Its only 75p a session ..but I've become interested'

When asked her how the exercise classes make her feel, she replied:

Gurvinder: 'its good, body feels lighter, 'she' ('instructor') does the exercises sitting down, an hour's exercise, she makes us move our hands like this and that (smiling and moving hand and arms about, repeats x 2).. then your body feels lighter when I go..'

Gurvinder: 'I think when I'm exercising I'm doing something good for myself to keep myself in good health'

Gurvinder repeatedly mentions how light her body feels when engaging in the exercises, and by moving her hands and arms, wants to show it is a real activity. The smile on her face may indicate the positive emotions felt during the exercise. The term 'lighter' used in this context, may indicate the burden of the anxiety she mentioned earlier about her physical health is temporarily lifted. Attending the CAHPI with her husband may seem a novel and meaningful way of learning how to look after their health-together, as he and the other members of the group were not aware of any other health-promoting programme like this, therefore the CAHPI seemed to be a means of gaining some meaningful support to improve their current health status:

Nandeep: 'no I don't know of any programme like this'

Manvinder: 'no, we don't know of any'

Kaldeep: 'English full 'nay aundee' ('we don't know full English'), 'full ave phir understand' ('if we knew, then we would understand), and those that don't know English, they understand less'

Gurjeet: 'we don't know about any other kinds of health programmes like this'

Ranvir: 'no I don't know, I don't know'

Ranvir: 'when we go to see the doctor, they just prescribe us the medicine'

Kaldeep swiftly follows his wife's comment by highlighting the disadvantage of not being fully literate in the English language poses. When probed further if their GPs made participants aware of such health promoting programmes, Ranvir responded by saying medications seem to be the answer

for their physical health problems. The CAHPI seemed to be a novel, informal and meaningful way of addressing the participants' physical health problems.

5.1.1.3. Opportunity to be a 'model person'.

This final sub-theme explored issues that seemed pertinent to only one participant: Arvinder; the single, unmarried, and youngest participant within the group. Arvinder mentioned the concept of an 'insaan', translated from Punjabi to English as a 'healthy role model'; someone envisaged as not being overweight and constantly having good health because they regularly engage in healthy eating and undertaking exercise. When asked to describe her health, Arvinder initially seemed quite bewildered possibly due to the long pause observed. Following further prompting to mention anything that came to mind; after some deliberation she replied:

Arvinder: '(long pause)....an 'Insaan's' (healthy role model) health should be a little lightweight, so a person can walk, ...is that right?

Arvinder: 'if you are overweight, then you won't be able to walk...if you eat less dinner then a person will be alright... and if you eat too much dinner then it will sit on your stomach, and you will not be able to digest it, if a person walks about a lot, then a person stays well'

Arvinder: 'Because I can't walk too much, then it get high, my blood pressure'

Arvinder: 'yes, being on my own, I don't like to go. There are many things, the doctor says ..go there and do some exercise , go out and do some exercise, and you see then in some way an 'isaans' ', health can be helped to stay good. But you can't go out alone, it's not right you see if you are on your own, the one in the Gurdwara was good though'

Arvinder expresses her struggle aspiring to be a ‘healthy model person’ because of her unique personal circumstances from the rest of the group; being a single unmarried woman. This status prevents her been seen alone, and wants to avoid the stigma of being frowned upon by other community members. Similar to the other participants though, her poor physical health; having high blood pressure and difficulty walking, and her perceived poor self-discipline with regards to eating habits, also seem to pose a challenge for her. However, Arvinders’ categorical self, seems determined to override these setbacks, and attending the CAHPI is perceived an acceptable and credible place within the community to obtain the support she requires in her quest to become her ideal self.

5.1.2. ‘It was in our Gurdwara’.

This theme encompasses two other specific culturally sensitive issues, namely the venue and methods of communication, which in turn helped facilitate a deeper sense of realisation and awareness of the links between their lifestyle behaviours and health status. Collectively, these three aspects seem to empower the participants to acquire and understand the knowledge and skills adopted during the CAHPI to help instigate the health-promoting behaviours.

5.1.2.1. An ideal place for this programme.

Religion and spirituality are prominent features within the Sikh community, and possibilities to visit the Sikh Temple (Gurdwara) are generally welcomed, and provide an opportunity for the older members of the community to socialise. The chosen venue seemed the ideal setting to deliver to the CAHPI as noted across the sample, mainly due to accessibility and acceptability:

Arvinder: ‘well because we can’t go out anywhere else, this is our Gurdwara, so at least we can come here, it’s ours, and it’s near to us’

Nandeep: 'because it was in the Gurdwara'

Gurvinder: 'Very nice what happened at the Gurdwara, nice, it was very nice'

Manvinder: 'we thought, we would go to the programme because it was in the Gurdwara, and we can 'matha tek', [listen to prayers], and we will see the others and have a chitchat, we enjoyed that yes'

Manvinder: '.. it was good, programme because it was in our own place, in the Gurdwara, and we were surrounded by our own people, so we didn't feel awkward like you do when you are with English people, and it easy for us to go there, it was good for lots of reasons because we could 'matha teek maharaj de bani'; [pay our respects to our holy book], and cook there , so yes it was a good programme for lots of reasons'

Ranvir: 'yeah that programme very, very good in the temple, it was a very good programme, and it does you know, we feel, we feel, I feel much better since I learn about the health, what to eat and a what not to eat healthy food ...we feel much better since..'

Gurjeet: 'it was in our Gurdwara , ...somewhere we can go outside of the house..'

The chosen venue seemed to empower participants in the sense it provided an opportunity for them to meet in an informal and familiar setting and engage in a formal structured programme that did not make them feel out of place. For Arvinder, it seemed particularly pertinent due to her unique social status; the venue seemed culturally acceptable 'we can't go anywhere else; this is our Gurdwara, so at least we can come here'. The use of the word 'our' by participants in this context, suggests a sense of belonging and ownership. Notably for Gurjeet, having an opportunity to go out of the home, and engage in something meaningful seemed important, which may imply a sense of isolation in her life world at times. These empowering processes were also evident in the following two sub-themes.

5.1.2.2. Useful ways used for communicating health information.

The variety of methods used to communicate the information and skills to promote the target behaviours within the CAHPI, e.g. practical demonstrations and visual aids, were in general, positively viewed by participants, as they seem to empower them by meeting their learning needs. The spoken Punjabi element was in general, positively illustrated at various points during the interviews:

Arvinder: 'because it was near, among your own community, and the information was communicated in Punjabi, yes that's mainly why.'

Arvinder: 'when you out to places, you need English, English little problem, I speak limited English. I understand it but I can't speak it. But here, we were told things in Punjabi a little and a little English. Yes then it has a good effect (effect said in English) that I understood what was being said, but if someone tells me in English, I have to very carefully figure out what was said'

Gurvinder: 'when things were explained in our language, it's really better for us'

Kaldeep: 'if information can be explained in our own language, it is of course more advantageous, because it's our mother language is Punjabi, now being in England its different, children have leant, but for us it's a little late for us now'

Most participants shared similar problems understanding information conveyed in English due to their poor English language literacy skills. The use of the Punjabi language by the Asian diabetes link worker during the CAHPI seemed imperative to understanding and making sense of the health messages delivered. The use of phrases such as 'yes, that's mainly why'; 'yes it has a good effect, that I understand what is being said' and 'it is of course more advantageous, because it's our mother

tongue’, depict this shared view. The use of ‘we’ by Arvinder, suggests she felt this was a shared problem and so did not feel alone or intimidated by this perceived weakness. Similarly having some health messages delivered in Punjabi seem a real advantage to Kaldeep, and more meaningful, in view of his reference to the disadvantage of not having the opportunity learn English earlier.

Nandeep: ‘yes, yes, that is always better, Asian is better. Things spoken your own language, in a little slow speed..if they explain ..Not too fast, and stop if somebody want to ask a question, and they willing to answer...’

Although Nandeep agrees having the health messages delivered in Punjabi was a good thing; the pace they were delivered was perceived problematic. There seemed little opportunity to ask questions of issues that instilled some interest:

Nandeep: ‘no we didn’t say too much, we didn’t stop to ask anything, she came to do her work and when she finished she went off..she was a little fast’

Nandeep: ‘Asian language, I prefer that one, but she was a little too fast, but Asian is still good’

Gurjeet: ‘yes..ah..but she’s a bit ..speaking little bit fast, but if you just slowly, slowly, then we can understand more easily, but a ..she speaking in English and speaking fast English, and we don’t understand much English. If a something we will be very pleased for that, yeah something in Punjabi’

Respect for perceived authority figures acted as a barrier to gain a deeper understanding of the issues that seemed important to participants, even by those delivering the information in their preferred ‘Punjabi’ language, despite initially being perceived as a useful way of communicating health information. Nandeep seemed uneasy to ask questions, and felt there was little opportunity to do this at that particular time. This incident suggests the other participants may also have felt a little intimidated or belittled by the hurried pace in which the information was delivered, and the lack of

receptiveness to non-verbal cues such as facial expressions and other body gestures they may have portrayed at the time. A sense of intimidation and humiliation seemed even more pronounced when information was communicated in spoken English during the physical health checks, which were carried out by a non-Asian CHD community nurse, as there seemed little regard to check if participants had understood the information conveyed during the session:

Manvinder: 'no I didn't understand anything at all from what she was saying, if it was said in Indian, then it would be good, if it was Indian then it would be good'

Kaldeep: 'she just kept on talking 'barra fast' [very fast] she spoke, she didn't even once check to see if we understood what she was saying, she just kept on talking'

Not being able to understand the information conveyed, was perceived as an unhelpful way of communicating health related information, and therefore made the activity uninteresting and meaningless. The practical demonstrations and visual aids also used to convey the health messages seem to help overcome some of the weaknesses experienced through the spoken forms communication:

Gurvinder: 'the food that was cooked, that was good, the cooking that we saw'

Ranvir: 'yeah the cookery was very nice a she teach us how to cook without the ...any grease, and a she used to put only a few, few a table spoons full of the oil when she was cooking, and then learn us to eat the small portions, small portions of food. This is what we learn from her before we was just putting like for example rice, a too much rice in the plate, now my Mrs has learn from her, get the small portion of the ...that is very good you...good for your health, and also you don't waste a lot of food that way'

Ranvir: 'big learning portion, small portion, portion of rice, small portion of everything, because she was talking in Punjabi, that is our main language we speak, that's why we understand it better'

Nandeep: 'the plate that was showing all the different foods ..it shows how much the different foods should be eaten daily, that was good what she was showing ..if you don't know these things, and you keep eating, keep eating ..you don't know what you are eating ..so you keep eating too much'

Arvinder: '..she [Asian diabetes link worker] also said good things too [spoken in a lowered tone], she said eat less butter, she said the things that you eat, you shouldn't over eat. If you over eat then....salt, she said you must eat very little salt, she added little salt she did. When she cooked the noodles; they were very weak, weak tasting, the others didn't seem to like them at all either; we all were heavy salt eaters, 'what has she cooked? ..I thought to myself' (laughing), well if we like eating these foods, then our bodies will get like this (laughing), then we shouldn't eat them (laughing)'

Gurjeet: 'I don't use anything now, we learnt this from the Gurdwara from the Indian teacher, our own Indian teacher that came ..she put only a spoon of rice ..she cooked the rice dish for us she put in only one teaspoon in..and she said to put less salt in all foods, I learnt quite a lot, and now I do that ..'

The visual features of the health messages seem to have a lasting impact and influence on the participants' attitudes towards healthy eating. The vivid recollections consciously sparked by the sensory undertones of the colours, tastes, textures and smells of the different foods presented during the sessions, could have contributed to this process. This may also have been endorsed by the awareness of the importance of portion size introduced. However, not all participants seemed keen to compromise their prevailing food preferences for seemingly tasteless healthier eating options, as depicted by Arvinder: 'weak tasting, the others didn't seem to like them either'. Her lowered tone

seemed to show she was not convinced by the healthier options presented. Arvinder seems to momentarily focus her attention on the reactions of the other participants at the time, and may have covertly sensed a general dislike for the new flavours introduced from their body language despite what they may have overtly said. The differences of the health messages perceived by participants from cookery sessions, illustrates they were more attentive to information that was meaningful and pertinent according to their individual health needs and understanding. The impact and influence of engaging in practical learning activities to promote physical health behaviours is illustrated below:

Arvinder: 'that exercise (chair-based yoga) that you do, I really liked that, what that man used to come and deliver, I used to like that, a lot of things we learnt from that'

Arvinder: 'like if you press these fingers like this [demonstrating actions], then, I remember that many things we learnt. He told us a lot of things about oils and things and then you catch these things. I used to get home and write them down too, because you forget when you get home [raised tone a little], then when I got home I'd write them down in Punjabi. But I say those things should be caught'

Nandeep: 'that a Asian man that came, he came doing the yoga something like that, ..yeah of course better, its better always understand more better than because understand more '

Gurvinder: '..that [yoga session], was a good thing ..yes he told us good things ..'

Ranvir: 'exercise ..yoga good exercise ..how to move your arms, legs and a which is the best way to do it so you don't disturb yourself, so if you learn how to move yourpart of your body..your legs, arms, how to move it, and this is what you learn from the yoga from that gentleman. He was very knowledgeable, it was very nice because he explain the things and how it affect your body'

Ranvir: 'yeah you feel strong when you do the exercise and make you relax, and you feel a strong day by day, and that's a good, that good for your health'

Ranvir: 'keep fit yeah, do exercise to keep fit, and there's also the company with the other people and talking with them and make some new friends there you see'

All participants positively viewed the chair-based yoga activity arranged to promote physical health behaviours, delivered by a lay elderly Punjabi gentleman. Arvinder makes reference to the value she placed on the experience by the use of the word 'catch'. In this context, 'catch' seems to conjure images of knowledge particles hovering around her, and the need to capture these precious particles before they are blown away; conveyed by the phrase: 'when I get home I'd write them down'. The slight increase in her tone of voice, suggests a sense of excitement about learning something new and meaningful to help achieve her health goals. The use of the word 'strong' by Ranvir, is quite powerful in this context. It seems to convey the importance and effort required to maintain some level of strength to counteract the weaknesses associated with old age. Additionally, the combined inferences made to the physical techniques acquired, positive emotions and social element sensed, and mode of communication adopted, seemed to help process a deeper understanding and positivity of the activity experienced, as so was perceived as a useful way of communicating health related information.

5.1.2.3. Realisation of new learning.

Another empowering impact the CAHPI seemed to have on the participants was the realisation and awareness of new learning, facilitated through the methods outlined above:

Gurvinder: 'they (methods used), should help 'awaken' ('housh') a persons' 'mind' ('demark')'

The term ‘housh’ used in this context refers to a sudden awakening of something inspiring and meaningful. It seemed certain words spoken in both in Punjabi and English to convey the health promoting messages, helped awaken a dormant mind. The following extracts illustrate the effects of the words used during the cookery sessions on the participants’ eating habits:

Arvinder: ‘she (Asian diabetes link worker) said potatoes are poison for us if eaten fried, she said you should boil potatoes and eat them, that will keep you well’

Nandeep: ‘yeah that lady (Asian diabetes link worker), told us, look, one, two, three things are poison; now the word poison has gone in my mind .. and it is ..its like eating poison; poison was ‘jalebee’ (Indian sweet), poison was ‘ladoo’ (another Indian sweet), she said this (referring to the Indian sweet: jalebee), is poison, it’s not a jalebee, this is poison, inside is poison, definitely she used the word poison.. I liked that (spoken in English)’.

Nandeep: ‘yes yes, there was a sense of danger instilled, if I ‘touch’ (spoken in English), that jalebee, than that lady comes to mind, I have now been scared, in my mind’

Gurvinder: ‘the things she pointed out ..this is not good, and this is not good, these things I have kept in my ‘mind’ (demark)’

The word ‘poison’ seemed firmly embedded in both Arvinders’ and Nandeeps’ mind, despite the differences in their literacy levels. Nandeep was observed as being more literate than Arvinder, nevertheless the potent undertone of the word ‘poison’, seemed to have the same fear-provoking effect. Its impact in this context may have uncovered the true danger underlying the deceptive image of the foods it aimed portray, hence the scare tactic adopted seem to work. Nandeep made particular reference to Indian sweet foods, and recalling them in turn, seem to suggest the examples of the foods presented may have been pertinent to his lived world. The phrase ‘now the word poison has gone in my mind’ suggests the meaning of the ‘Indian sweet foods’ changed. It seemed that a realisation

occurred from this new learning, and that the initial perception of Indian sweet foods changed from being harmless and enjoyable to something harmful and detrimental to health. Nandeep's use of the word 'definitely' in this context seems to convey the unquestionable judgement of the perceived authority communicating the health message, and that it was something that should be adhered to. Another visual tactic that seemed to provoke a realisation of the seriousness of the health problems in the participants' community was the use of PowerPoint:

Kaldeep: 'because it made you realise, made you think this problem is in your own community, that's why'

Gurjeet: 'Because we understood more; these many in our community have diabetes and these kind of things ...'

The combination of statistics and pertinent images depicted within their locality seem to instil a realisation of the consequences of sustaining any health compromising behaviours. Additionally, the perceived proximity; Kaldeep: 'made you think the problem is in your community', seemed to make the issue more personal, and the need to take action. Another realisation uncovered by participants was the function of the diaries the researcher had designed to monitor their personal health targets:

Nandeep: 'yes 'it' (diary) was good thing, but we don't..not used to writing things'

Ranvir: '...because it was the first time we saw this, and we not in the habit of writing you see.... ...but after that, we realise it is important, it is important and useful that you can check what you have done you see, I think that is a good idea to keep the diary, write down yeah ..and everything like that, it's just habit yeah, yes it can be useful you can trace it back what you have done, and what is the difference up to now..'

Although it seemed to take a while to realise the purpose of the diaries, their disregard during the programme was a result of unfamiliarity of writing tasks in their daily lives. Upon reflection, the participants seemed to realise, it was a simple but useful habit forming activity.

5.1.3. 'We all got together, the time passed nicely'.

Meaningful support from peers played a major role in the participants continued attendance of the CAHPI, and instigation of behaviour changes observed. The following two sub-themes reflect the significance of the quality of social support experienced by participants from both their peers and healthcare professionals.

5.1.3.1. Learning together and supporting each other.

The social element of doing something together seemed a pleasurable and meaningful way of passing the time, and the participants looked forward to engaging in a regular activity. Similar characteristics such as age, language, and cultural identity made conversing easy, as participants were able to share meanings of what they learnt and how that affected their daily lives:

Kaldeep: 'we all got together and it was very peaceful when we get together, because usually we don't get together that much at this stage. When you started the programme, we were all together and were very happy'

Nandeep: 'it was an excuse to meet up and have a laugh, then we used to ask each other 'where were you yesterday? I went to a wedding and this and that, I see you next time, I say yeah' (laughs), and then we'd sit together and have a cup of tea, and the rest of the time we'd engage in 'deep' ('krareloo') conversation'

Gurvinder: 'we got together, the time passed nicely'

Kaldeep: 'And because we all went as a group, we're all about the same age, we like that, and we talk about the same things and that yeah, we'd be happy to see each other, that's why we used to go '

Nandeep: ... 'and one main point was learning together, we all got together'

Nandeep: 'yeah, we seemed to develop a routine ..it became a routine ..before we didn't know ..so least we move forward ..we want to learn a lot of things this year'

The regular formal gatherings for a shared purpose seemed a novel occurrence for the participants. This seemed particularly pertinent to the limited meaningful socialising opportunities available to them in their current stage of life and immigrant status. The reference to 'peaceful', suggests this socialisation opportunity allowed them to catch up with community affairs and engage in deep meaningful conversations affecting their daily lives. This novel camaraderie helped cultivate an unprovoked routine, seen to help the participants move forward; implying improvement in their lives, as opposed to the usual decline expected in their life stage. The perceived peer support seemed a common factor helping the participants grow in their understanding regarding improvements to their health status.

5.1.3.2. Making sense of the need to eat healthier and to be active.

All the participants' show they acted on the advice presented during the CAHPI nine months after it finished. This suggests the CAHPI had an impact on their personal efforts to sustain health-promoting behaviours because of the value they attached to improving their health status. It seemed the structure, content, and activities included on the CAHPI, generally appeared meaningful to help the participants initiate as well as sustain their personal efforts to improve their health status. The following extracts show how the advice influenced their dietary behaviours.

Arvinder: 'if we eat sensibly according to our personal health then... but you mustn't eat too much at night, I remember that was said in the programme, I remembered it, and now I eat before 9pm..if you ...after 11pm, then your dinner stays sitting here [pointing to stomach], and then you have problems digesting it'

The time of day to eat seemed an important issue for Arvinder. She shows she is aware of the need to eat sensibly, which means not eating too late at night. This could be something she found difficult to do, by her sudden recollection and reference to 'you mustn't eat too much at night'. This may have unexpectedly triggered moments of discomfort she experienced because of this in the past, and shows her present efforts to eat sensibly:

Arvinder: 'now I watch what I eat, I have cut down on margarine and butter, I have also cut down on sweet foods, just tea, I drink sweet tea'

Nandeep: 'that (CAHPI), make my mind up you know, and now we don't get the blue milk, only today I brought the green top milk. Before I didn't like 'it' (semi-skimmed milk), she (wife), always have the green, I always have the blue one, so I think that could make a little difference'

The health messages conveyed during the CAHPI shows how they helped Nandeep to make a major change to one of his long-standing dietary habits. The event seemed to help change his attitude from thinking it was acceptable to maintain this now perceived health compromising behaviour, and that it was time to make a change to show he valued his health.

Gurjeet: 'now when I cook meat, I don't use any cooking oil or 'ghee' (clarified butter), I have cut down on salt completely, and chilies I use less too, I keep all these things in the house, but I don't use them that much. When my children come round and taste my cooking they say 'mom I like your cooking' whoever comes to my house say 'love the cooking' my cooking you know make everything Asian, but

it's not that I just cook Asian food, I cook English dinners as well. I cook my Indian fish pie, with mash potatoes, sometimes pasta.'

Gurjeet demonstrates her skills in cooking a variety of health conscious meals, without seeming to compromise flavour. For her, cooking seems to be a pleasurable and enjoyable activity because of the endorsement she receives from her family, which in turn makes her feel valued. Gurjeet also seems to have incorporated the health messages presented in the CAHPI, with reference made to the present time.

Manvinder: 'sugar we have reduced, salt we have reduced, and we don't eat fried foods anymore'

Kaldeep: 'we put less salt, we put less oil, this is very essential'

Kaldeep: 'we now use those things that will keep your health better; we try to keep a better way'

Ranvir: 'yes I feel much better now because as I said the healthy eating what we learnt from that programme and we doing since then , not much erm...not using the fat and using much... I used to use salt, putting on the..my dinner, but I stopped that since... salt and a less sugar'

The participants seem to realise the need to make changes to their daily eating habits; specifically to fats, sugars and salt intake. The reference to 'now', suggests the dietary changes were made since attending the CAHPI. The CAHPI in general may have helped the participants' to become aware of how their daily dietary habits were negatively affecting their health, and they had the power to do something about it. They seem to realise adapting to change; in this case, taste was something worthwhile. The following extracts show how participants make sense of the need to keep active according to their personal circumstances:

Gurjeet: 'yeah, pedometer, I did that, I liked that, but I didn't bother that much with it, but if I have it again I will definitely use it, because I liked that thing. I opened it up, because I think the battery went, and I haven't bothered with it since then. If I get it again then I will use it every day, because with that I used to see how much I walked, and how much energy I used'.

Gurjeet: 'yes that's right..its about habit ..I thought it was a good thing'

Initially, Gurjeet did not understand the function of the pedometer when introduced. Gradually having learned to use it, realised its usefulness in promoting walking; a physical activity she found easy, enjoyable and meaningful, and which seemed to alleviate feelings of claustrophobia, tension and distress of sitting indoors:

Gurjeet: 'for a little...sitting inside feel agitated you say to yourself, 'go for a little walk'. I mean in the fresh air '

Gurjeet: '...up to a few street, slowly, slowly, feel much better ..I can't walk that much'

The extract above suggests Gurjeet finds walking a simple activity she enjoys, but struggles at times because of her chronic back pain, nevertheless seems determined to keep as active as she can:

Gurjeet: '..like listening to prayers while walking, ..then my 'mind hor pase jhandai' ('goes to a different place) it goes to prayers, then you don't think of other thingsyour mind is focused on prayers'

Gurjeet; 'that time for me goes really nicely, then in a week, twice, or sometimes three times in the week I go ..and feel much better'

Reference again is made to the importance of religion and spirituality in Gurjeets' daily life. Her religious beliefs seem to elicit a powerful ambience from which she draws strength to overcome the frailty brought on by her recent accident and subsequent chronic back pain. Associating walking with praying makes the activity more meaningful and enjoyable, because she is momentarily detached from her everyday worries and concerns, and is in a happy place and at peace with her surroundings.

Arvinder: 'I used to put it on before going out, when I used to see how much I walked, I used to say 'if I've done this much this is good', if the points were less, I used to think, I used to write it down. If you start 'it' (CAHPI), then I will start 'it' (pedometer) again'

Despite their existing physical health problems, both Gurjeet and Arvinder seem to make sense of, and are driven to maintain and enhance their current health status. For Arvinder, self-praise for her efforts, and for Gurjeet, a temporary detachment from her perceived periodic distressful existence seemed to be the driving forces of their walking behaviours.

Arvinder: 'oh well, when I used to see 'that' (numbers increasing and decreasing daily on pedometers), then I used to feel set 'ssett (in harmony) when I used to go to the Gurdwara, I used to put it on then too. But 'they' (referring to pedometer), work a little (laughing), the battery is about to go, I will get another one'

Arvinder: 'good benefits yes, 'it' (pedometer), helped me see how much I walked, that's what can be found out'

The objective measures of the pedometers also seem to motivate Arvinder's walking behaviours, and help facilitate a sense of harmony with her emotional as well as physical state, illustrated by the use of the term 'ssett'.

Ranvir: ‘ no before the programme I wasn’t going for walking, so since then, I start because I learn from that programme that the walk is good for you, so I have started it since then’

Ranvir: when we (wife) go walking in the evening, walking make you a bit tired and you sleep well’

Kaldeep: ‘...since before (the CAHPI), because I control things, I feel much better , I can walk, I can do yoga, everything, I can do everything’

The CAHPI seemed to both help instigate as well as enhance existing physical activity related behaviours for some participants. It seems to help illuminate meaningful reasons and make sense of why it was important for them to engage in these behaviours.

5.1.4. ‘We are in a different stage in our lives now, we are not the same people we were 10 ten years ago’.

5.1.4.1. Life stage.

For some participants, their current life stage acted as a barrier rather than a motivator to enact their health behaviours. For example, Manvinder immediately follows her husband’s response (outlined in the previous sub-theme), by illustrating the opposite of being able to do everything. She shows her restricted mobility closely followed by reference to a lack of strength. The combined physical weaknesses may have led to her cautiously considered decision, in her current stage of life, to undertake an operation on her weak leg, in the hope of regaining her lost strength:

Manvinder: ‘I sit holding onto my legs, I can’t move about too much, that’s why now I have decided to have an operation, I have made all the ‘bandabus ‘ (‘made

all the arrangements') now I say do my operation now, I have been thinking about this for quite some time'

Manvinder: '.I don't have any 'himmat ' (physical strength).

Manvinder's reference to making the necessary arrangements to have her knee operation shows she feels unhappy with her current situation. This infuriating state has compelled her to take this action to move forward with her life. The complexities of maintaining to be active are further illuminated by reference to mood and physical states. Both Manvinder and Arvinver imply the need to override these emotional and physical weaknesses to motivate them to be more physically active by using the term 'himmat' referring to both physical and emotional strength:

Arvinder: 'can't do things, I mean depending on 'himmat' (emotional strength).

Sometimes you can't do things, and if you can't you leave it that day. Sometimes if you don't feel like it, you might have low mood, then, but when you feel well, then I spend all day working and doing things'

The problems experienced to maintain their health behaviours in their current stage of life, were also resonated in their accounts of dietary behaviours. Kaldeep refers to different life stages requiring different eating habits, and the need to retain some self-control to sustain good health:

Kaldeep: 'it is in our hands how we look after ourselves, we are in a different stage in our lives, we are not the same people we were 10 years ago, I have controlled my eating habits considerably, I only eat how much I need, but people still eat too much'

Kaldeep seems to temporarily reflect on community members he is aware of that have suffered because of over eating. Radical changes made to his own dietary behaviours, may partly be due to those observations, as well as the learning experienced from the CAHPI. However, not all participants show self-control, despite being aware of the risks involved with health compromising dietary habits:

Gurvinder: 'if any food comes in front of me I eat it, I say I'll deal with the consequences (laughs)'

Gurvinder seems to lack the willpower to refrain from unhealthy foods within her reach, despite knowing the health risks. Her subtle laugh seems to reveal her lack of confidence and self-esteem in the matter:

Gurvinder: 'although I do say to myself 'this' (referring to unhealthy food), is bad for me, but I can't resist it, I say 'mitta khayai' ' (repeats 'eat this sweet thing'), I like it a lot, I don't like savoury types of foods as much as I like sweet tasting foods'

Gurvinder: 'I do try sometimes ...I know this will ..my blood test will be taken..the nurse said I'm on the border'

The repetition of wanting to eat sweet tasting foods may reflect an underlying desire for something uplifting in times of discomfort. Earlier, Gurvinder refers to unexpected attacks of excruciating pain in her arms and legs that instil a sense of fear, and leave her feeling helpless. To help counter these undesirable and uncontrollable moments, she seems to find temporary comfort in this indulging activity, which may be perceived as scarce in her current life stage.

5.1.5. 'You can't learn all the things in one day, we need some more'.

This final super ordinate theme encapsulates the essence of the previous themes, and illustrates how the participants' experienced taking part in the CAHPI. The first sub-theme explores key aspects that underpinned their general impression of the CAHPI, followed by their suggestions for further improvements in view of their experiences.

5.1.5.1. General lasting impression of the programme.

All the participants seem to have a positive lasting impression of the CAHPI, and for some it seemed to end too quickly. Arvinder shows efforts to strive for her ideal self and sustain the learning obtained from the CAHPI:

Arvinder: 'it's been good yes, but then it finished, then I brought myself an exercise bike, then I thought, I'll carry on the exercises home'

Arvinder: 'lots of benefits there was, it's up to listeners to carefully listen to the things that need to be listened to, and go and act on what they are saying. It's no good having listened and then not acting on what you have heard (laughing), and carry on eating and drinking as before'

Arvinder refers for the need to take personal responsibility for one's health, and seems to value the knowledge imparted during the CAHPI. She seems to understand behaviour change takes conscious effort and that people can have some control over their health circumstances.

Arvinder: 'the things you used to tell us, we catch them and that helped us understand that, that this is bad'

Information communicated in the Punjabi language, seemed a key device that helped facilitate change in healthy behaviours. The use of the word 'catch', seem to denote a constant bombardment of information that seem to pass her by. However, the delivery of the health messages through both visual and verbal means helped Arvinder capture those issues. By focusing her attention on matters Arvinder could understand that seemed pertinent to her life world, seemed to leave a positive lasting impression of the CAHPI for her and the other participants:

Ranvir: 'yeah it was a nice programme we learnt a lot of things from there about the health. Before we didn't know before, we learn lot of things to keep yourself fit,

and it is very handy, you made some friends there as well. Then we get together that programme and you make new friends, get together and it was very nice, enjoyed it. We don't mind to go there again because it been a long time since.'

Gujeet: 'you know 'kafee change hoyia' (' a lot of changes'), made since going out, going out to the Gurdwara, walking, this is making me feel much better, you know feel good... '

Gujeet: 'yeah, yeah, I will be very pleased if you start something like that gain, and my friends you know they, they will like it, I ask my friends to join again'

Most participants revealed they learnt more than just health related information. The social aspects nurtured camaraderie between the participants, which helped them grow as a leaning group. This seemed novel experience for them, and one that they enjoyed and felt comfortable, and again appeared to leave a positive lasting impression of the CAHPI:

Gurjeet: 'yeah go outside and a you know I'm pleased if you do something like that again'

Gurjeet: 'yeah, yeah, because you sitting down thinking more about things, ... family things and your mind get a very know in worry and things like that ..but if you go outside and seen look for some friend, new things ..make you feel better , much better

Gurvinder: 'it was a good way of passing the time'

The social feature also helped reduce their usual boredom, perceived isolation and underlying daily family related tensions:

Gurjeet: 'we need some more, some teacher come and explain to us, because you can't learn all the things in one day, we need some more, like within a year, someone come at least two or three times, and do a programme like this, exercise was very good, the man that came to do the yoga, it was in our Gurdwara, that was helpful for us, we liked that very much; how to move your hands; how you do the yoga, move your arms about. Exercise for your legs, how you do it, how you do exercise sitting down, how you do the breathing. These things we learnt, if this is done again, we don't mind it, I mean we liked it.'

This initial participation seems to have a positive enduring impression, which led to a request for a further opportunity to recreate a similar experience. Gurjeet emphasises the importance of repeating information, to help deepen understanding of issues that seemed meaningful according to her personal health circumstances. She vaguely tries to recall the activities to show she valued them, and that her request for a follow-up programme was genuine.

Kaldeep: 'feel, we liked it because we learned some new things, some things we heard before, but it was good to hear again, then you know that they are right things because you hear them again (laughs)'

Kaldeep also echoes Gurjeet's sentiments regarding a positive impression of the CAHPI, and the usefulness of having meaningful information repeated. This acted as means of self-assessment and helped reinforce their existing knowledge on health matters.

Nandeep: 'We figured out we can keep a day or two here and there . we can work something out ..its only for a day or two'

Nandeep insinuates although he has other commitments he valued what the CAHPI had to offer, and for that reason is willing to accommodate some time in his routine if it was to run again.

Manvinder: 'no everything was nice, everybody is different, and some people like new things like this, and some people don't. Some people will always have something to moan about like why are we opening the Gurdwara in the week and using up unnecessary gas and electricity; but this is human nature and there will always be these kinds of people. We think 'this' (CAHPI) was a good thing and will support this in future. I remember you did make an announcement in the Gurdwara for anyone to join in, but it's up to them to make the decision. It was our decision and we came because we value our health'

Manvinder acknowledges the fact that individual perceptions on life in general, and the value people place on their health, play a major role in their health status. From her life world, Manvinder acknowledges the importance of actively seizing opportunities to help sustain and enhance her health status, because of the value she places on her health.

Nandeep: 'try to arrange this programme in our Gurdwara too, I don't know what classes you can do, but try in our Gurdwara to do something, sometimes you can come there and do something, at least one day in the week; an hour on Sunday maybe, some suitable time, because if it's your own person, then you want to share these things'

Nandeep: 'if 'it' (CAHPI) can save peoples' life, it is definitely worthwhile'

Nandeep highlights the broader impact and benefits such a programme could have for the wider community. It seems the researchers' personal acquaintance with the participants had a positive impact and impression. Nandeep feels the need to share this meaningful experience with his own Gurdwara as he was a member of another Gurdwara located close by.

5.1.5.2. Suggested programme improvements.

The previous sub-theme highlights a number of positive lasting impressions from all the participants, approximately nine months after it had taken place, signifying these impressions were still quite vivid. One participant tried to recall a few suggestions to help improve her initial individual experience of the CAHPI:

Gurjeet: ‘ I can’t remember from that time...but there was one thing, ‘it’ (CAHPI), was downstairs, if it was in some comfortable room....somewhere you can sit more comfortably, with that you can sit better or see things in more of a relaxed way, we didn’t like ‘it’ (ppt) very much on the wall’

Gurjeet: ‘ yeah if it was in the other room, where ‘they’ (Gudwara committee members), have their meetings, then you can mount a screen on the wall very easily, and it will be more comfortable, also it’s a smaller room and its quiet, and their nothing can disturb you... you can concentrate there ...’

The discomfort Gurjeet recalls and emphasises she portrays in both extracts seem to stem from the chronic back pain she referred to earlier. Her carefully considered suggestions for possible improvements indicate she also valued what the CAHPI had to offer, but having comfortable seating in a noise free area, would further enhance a possible follow-up experience.

The current section has examined the five super ordinate themes and corresponding sub-themes uncovered from this particular method of analysis. The additional unique bilingual process undertaken during the analysis was able to depict the essence and meaning of the participants’ experiential journey of the CAHPI through the themes presented.

Chapter 6: Discussion

6.1. Summary of main findings

The aim of the current qualitative study was to undertake an in-depth exploration of how a group of elderly Punjabi Sikh immigrants experienced taking part in a CAHPI through an interpretative phenomenological approach, rather than conducting an objective evaluation of the intervention. The flexible techniques adopted through this methodology were able to uncover generic as well as specific issues relating to the participants' experiential accounts. The findings were able to depict the dynamics concerning individual and group experiences in relation to their holistic health needs as opposed to concentrating on narrowly focused physical health issues. The analysis was undertaken by examining discrete features of the participants' unique characteristics. These included their age, gender, health status, literacy skills, and the manner in which the accounts were presented such as; tone of voice, pauses, laughter, metaphors, fluency and use of repetition. These detailed accounts framed a local understanding of issues pertinent to the target group's lived worlds. The particular focus on temporal and contextual issues was used to explore the interplay of individual and shared meanings assigned to their experience of the intervention. The experience was therefore identified as an event that had a different meaning for individuals within the target group. The five main themes uncovered from the in-depth analysis are discussed in the following section.

6.1.1. 'For our good health, we are getting some help with our health'.

This initial theme depicted many intrinsic motivating factors participants expressed concerning their initial interest and continued engagement in the CAHPI. Preserving their mobility and independence by obtaining meaningful support to learn how to keep active during their current life stage was viewed as a positive reason for taking part. This view supports earlier findings (Taylor et al., 2004; Sriskantharajah & Kai, 2007) regarding maintaining better guidance and support on appropriate levels of physical activity and an understanding of its health benefits; particularly in promoting informal to moderate intensity levels of physical activity recommended for this vulnerable group (Department of

Health, 2011). Additionally in line with IPA's idiosyncratic approach, detailed probing uncovered different motivating factors for the need to take part in the CAHPI. Salient terms expressed in the Punjabi language were captured to convey their conceptual equivalence. For example, the need to stay active was expressed by the Punjabi terms: 'pajaiye te nasiye' translated as 'running and having fun' in the English language. The use of metaphors such as the term 'ssett' translating as 'being in harmony', helped articulate the desire of another participant to achieve an ideal health status, one which would help her feel in harmony with herself both physically and emotionally in relation to her lived world. The detailed analysis uncovered the stigma associated with the same participant being a single woman, to exercise her autonomy amongst a collectivist culture (Horne et al., 2012). Therefore, in relation to the current analysis, the CAHPI was viewed as a meaningful initiative, where all the participants felt comfortable obtaining support to fulfil their underlying desires to improve their health physical status. This insight also supports previous findings that revealed South Asian women, who desired to participate in physical activity promoting initiatives outside their homes, were made anxious and felt stigmatised by the negative view of their activities expressed by some members of their community (Farooqi et al., 2000; Lawton et al., 2006; Grace et al., 2008).

6.1.2. 'It was in our Gurdwara'.

The setting in which the CAHPI was delivered, a local Sikh temple, was perceived as a natural and meaningful choice for such an initiative in relation to the target group's accessibility and acceptability requirements. The shared significance all participants assigned to religion and spirituality in their daily lives supports previous views that such settings are conducive to the learning and spiritual needs of the target population by serving this dual purpose (King et al., 2006; Bedi, et al., 2008; Coe & Boardman, 2008; Galdas et al., 2010). Additionally, the opportunity to acquire meaningful health information within an accessible and acceptable context was seen to alleviate the social isolation immigrants from the target group have shown to experience due to acculturation processes (Lawton, et al., 2006). However, studies have also shown that if on-going support is ceased this can lead to negative impact when utilising such contexts for health promotion initiatives in this population group (Eastwood, 2013).

The implementation of the Punjabi language to articulate health information and facilitate meaningful understanding between detrimental lifestyle behaviours and their subsequent health risks was a shared positive perception of the CAHPI experienced by all participants. This observation corresponds with previous findings showing Punjabi Sikh immigrants commonly display poor levels of English language and literacy skills related to acculturation processes (King et al., 2006). This generally positive finding could be explained by participants' relatively effortless ability to process the health messages verbally articulated in the participants' preferred language. This finding highlights the difficulty in processing health messages conveyed in English, as they were perceived less meaningful because of the participants' ability to process them. However, some participants expressed that although exposure to their preferred language was positively received, failure of the Punjabi speaking healthcare worker to recognise subtle non-verbal cues participants emitted, clouded this experience somewhat. It seemed the informal friendly context might have fuelled the desire to learn more about particular issues pertinent to the participants' individual lived health concerns. This insight agrees with implications of previous findings that advocate for the need for bilingual speaking health workers trained to be more perceptive to the health related learning needs of this vulnerable target group (Sidhu et al., 2015).

Nevertheless, the health messages conveyed by the bilingual health worker, seemed to have a positive impact to facilitate the process dietary behaviour changes. For example, the use of shock tactics; highlighting the detrimental effects of traditional sweet foods towards the deterioration of health, seem to instil some level fear, opposed to the uplifting effect such foods generally induce. Again the use of metaphors during the analysis; sweet foods perceived as deceitful and poisonous, seem to capture the potent meanings assigned to their new learning. For some participants diagnosed with a chronic condition, this tactic seemed to help them make sense of the need to change their long standing health impairing eating habits. The positive observations of fear appeal found in the current study seem to challenge previous findings. A recent review (Ruiter, Kessels, Peters, & Kok, 2014) examining fear appeal research used in persuasive campaigns and behaviour change interventions spanning over sixty years, found little evidence for its effectiveness. Fear appeals used in health education practices and the framing of effective fear appeal messages according to the Protection Motivation Theory (Maddox & Rogers, 1983) and the Extended Parallel Process Model (So, 2013) were examined. It was concluded that coping information intended to increase perceptions of response

effectiveness, particularly in relation to self-efficacy, was shown to be more conducive in encouraging protective actions rather than presenting threatening health messages intended to increase risk perceptions and fear arousal alone. A closer examination of Ruiter et al.'s (2014) review, specifically the notion of self-efficacy, may partly explain the mixed responses observed from individual participants in the current study regarding the fear provoking health messages. The negative effects of fear arousal health messages and their subsequent framing of either loss or gain framed messages found in the review could be attributed to their application within mass media campaigns. These strategies are thought to induce and reinforce risk behaviours and encourage denial among the target audience. The current findings support the view that approaches which adapt fear messages based on an understanding of their intended target audience and readiness to change are more likely to be effective (Murphy & Bennett, 2004). In addition, empowering context, together with the familiarity amongst the target group members, and their readiness to change, seem to create the conditions where meaningful support was perceived to promote positive health outcomes.

6.1.3. 'We all got together, the time passed nicely'.

The meaningful peer support provided by both the participants amongst each other and the health care providers was instigated by their shared characteristics and cultural norms. Together with an accessible and acceptable setting to acquire meaningful health related knowledge fuelled the process of making learning together a pleasurable activity (Coe & Boardman, 2008). Relatedly the time frame: 10 weeks, in which the intervention was delivered, seemed adequate to allow the gradual development of group norms of meeting together for a shared purpose to develop (Galdas et al., 2010; Horne et al., 2010). Although some resistance to attend was initially observed; health related appointments and family obligations originally took precedence, the participants' perceptions relating to the importance assigned to these events gradually shifted. Their new identity as a 'learning group' instigated by the shared benefits experienced over the weeks retained their engagement. Subsequently, this process seemed to prompt the request for a follow up programme to help the participants preserve this new identity and overcome problems they encountered to help facilitate the target behaviours.

6.1.4. ‘We are in a different stage in our lives now, we are not the same people we were 10 ten years ago’.

Although participants understood that some of their current unhealthy eating practices posed a threat to their physical health status, they found it difficult to change their maladaptive eating habits. For example one participant reported being informed she was on the verge of developing diabetes if she continued her current sugar level intake. This finding could be explained by the participant’s perception of her current life stage being associated with uncontrollable physical health related deteriorations (Lawton et al., 2008). It seemed unhealthy foods provided some level of control and were temporarily uplifting. Additionally, co morbidities related to physical health decline experienced in their current life stage, made it difficult for participants to engage in regular moderate physical activities. The analysis uncovered that participants’ life stage impacted on both their eating and physical activity practices. Additionally as noted earlier, the level of self-efficacy (Murphy & Bennett, 2004) perceived by individual participants, could help explain their unique personal challenge to modify their health compromising behaviours. This is also supported by Rejeski & Milhako (2001) and Spirduso & Cronin (2001) who highlight the importance of older people’s levels of self-efficacy to engage in daily living activities as a critical indicator of health related quality of life. Studies have shown low self-efficacy is a significant determinant of functional decline with chronic disease (Rejeski et al., 2001), risk of falling (Tinetti et al., 1988), and future engagement in physical activities. The experience of taking part in CAHPI seemed to help participants realise that some personal challenges they encountered to modify their health compromising behaviours could be supported through increasing their confidence and levels of self-efficacy by engaging in such initiatives, which led them to request a follow-up programme.

6.1.5. ‘You can’t learn all the things in one day, we need some more’.

Overall, all participants showed a positive impression of taking part in the CAHPI. This finding may partly be explained by implementing all three major components of the newly developed COM-B (Michie et al., 2011). For example, the current study illustrated that having the opportunity to acquire appropriate knowledge and skills, and psychological capability to process meaningful information, may have influenced motivation to facilitate behaviour change. The interactions between the three components seem to relate to both attitudes and actions, supporting the basic premise of the model. The implementation of these components could also be seen to complement four of the five guiding principles outlined by Netto et al., (2010) to design behaviour change intervention for marginalised groups. For example, the ‘opportunity’ component could be viewed as utilising community resources such as the Sikh temple as a means of advertising the intervention, as well as overcoming barriers to assist access and participation, and being a free programme. The implementation of COM-B’s ‘psychological capability’ component could be seen to overlap with Netto and colleague’s principles, as the adoption of communication strategies sensitive to language use and information requirements by delivering health messages in the Punjabi language. Finally, ‘motivation’, could be viewed as being influenced by working with cultural and religious beliefs to deter health-compromising behaviours using examples of unhealthy practices observed in the target groups’ community. The combined application of these evidence based components seemed invaluable in assisting the meaningful structure and contents of the intervention. The rigid objective outcome measures, initially adopted to assess the CAHPI’s utility dictated by COM-B’s design and the behaviour change competency assessment objectives, prevented the opportunity of any meaningful findings of the participants’ experience of taking part in the intervention to manifest. For example, weekly diaries and pedometers were provided to participants to record their dietary and physical activity related behaviours, but were not utilised appropriately, hence failed to show any meaningful objective outcome measures. In comparison, the subtle process measures captured by adopting the IPA methodology, were able to reveal the deep-rooted influences argued by Resnicow et al., (1999), and community health psychologists (Murray & Chamberlain, 2004; Murray et al., 2004) essential to

facilitate behaviour change. Within the current study, group etiquette and cultural norms were also revealed as being essential features that were addressed and possibly led to a more positive perspective of the CAHPI, as all participants reported learning more than just health related information. For example the social aspects of the CAHPI seemed instrumental in nurturing the camaraderie and new identity the participants experienced as a 'learning group'. The importance of social interaction in facilitating the uptake of HEPA opportunities was also noted by Crone (2007), similar to the importance of social conditions noted by Nelson & Prilleltensky (2010). In regards to the COM-B model, the carefully considered implementation of the components, alongside Netto et al.'s intervention design guiding principles, appeared to create a novel and largely positive experience for all the participants, which in turn seemed to generate the interest for a follow-up intervention.

6.2. Methodological considerations

Before any meaningful conclusions regarding the current findings can be drawn, a number of issues require consideration. These include the assessment specific qualities of qualitative research undertaken during the research process (Dixon-Woods, Aggarwal, Shaw & Smith, 2004, p. 224), in addition to the quality of interpretations and understandings uncovered (Chamberlin, 2000).

Considering the assessment regarding the quality of the research process, published guidelines offer some direction to assess their rigour and application. However, there is an increased acceptance that adopting checklists in a rigid manner may limit the creativity to identify issues that could appear novel and inspiring (Yardley, 2008). Such guidelines should also take into account the initial rationale and theoretical assumptions underlying the qualitative approach adopted. Consequently, Yardley (2008) identifies four flexibly defined criteria emphasising the following principles to assess qualitative inquiries: 1) sensitivity to context; 2) commitment to rigour; 3) transparency and coherence, and; 4) impact and importance. These principles are applied to assess the quality of the current study's findings for two main reasons. Firstly the guidelines have a sophisticated and pluralistic viewpoint closely aligned to those of IPA, (Smith, 2009). Secondly, they conveniently integrate the principles of previous guidelines set out to preserve rigour of qualitative inquiry.

In the current study, it could be argued that Yardley's 'sensitivity to context' was demonstrated by uncovering the socio-cultural milieu in which the study was situated. This included providing a comprehensive review of the extant literature relating to the topic. It also included detailed illustrations of the participants' accounts in their preferred language, highlighting the impact of contextual issues within their daily lives, e.g. socio-cultural status being a single unmarried woman. With regards to 'commitment to rigour', the current study aimed to exhibit this by undertaking a comprehensive, systematic and detailed analysis that provided in-depth interpretations of each participant's experiential account. Additionally, purposeful sampling ensured a close match between the research aims and subsequent findings. Extracts provided by each participant, using salient terms and phrases spoken in their native language were used to support the themes uncovered from the detailed analysis. Specific issues were also uncovered through careful probing and prompting to acquire meaningful insights pertinent to particular individuals, specifically in relation to the processes of the CAHPI as opposed to objective outcomes measure. Yardley's third principle proposed to assess the quality of the current study concerning 'transparency and coherence'. This can be viewed by the documentation and reflection carried out during each stage of the research process. The process of reflexivity allowed the researcher to be aware of any potential bias and make them apparent. For example, being a member of the target population helped the researcher understand the context of group dynamics between the participants. This supports the notion that there are several layers of relationships to which the design and methodology of research must be sensitive. This includes the relationship between researcher and participants, with respect to the possible inter-subjective dynamics that can be a medium in which meanings are considered and communicated (Holloway, 2007). Although the researcher was familiar with the participants, the participants were unfamiliar with the intervention's processes such as the requirement of regular attendance; exposure to tailored activities and resources for their age and socio-cultural norms. This process allowed the researcher to clearly describe and provide a rationale for each stage of the research process including: participant selection; recruitment; data generation; interview schedule construction, as well as specific steps undertaken during data analysis, selection of the intervention components and activities etc. Additionally, each stage of the research process aimed to show how it aligned to the theoretical assumptions of IPA's particular approach with regards to the current study aims. Finally, in relation to Yardley's emphasis on the 'impact and importance', the current study indicated this by uncovering

key findings showing how participants from this particular target population made sense of taking part in CAHPI. The analysis also revealed which particular features were shown to initiate and sustain their engagement nine months after it had taken place. Interestingly, the time frame in which the CAHPI ended and subsequent interviews were undertaken expresses the importance the participants attached the vivid recollections they presented.

The potential impact of the current study findings, also relate to the wider aims of health psychology, and community health psychology in understanding the psychological and contextual factors understood to facilitate both health promoting and health compromising behaviours in the development of health and illness (Murray & Chamberlain, 2004; Ogden, 2012). IPA is shown to be suited to both disciplines' aims, and it is interesting to note health psychology is where IPA first became established (Brocki & Wearden, 2006). Although there are a considerable number of studies examining personal experience of particular health conditions, treatments and decision making in a range of populations, the current study is the first to examine the experiences of this particular target group in this research context. The unique procedure of obtaining, transcribing and interpreting authentic accounts provided by elderly Punjabi speaking Sikh participants, the bilingual health psychology researcher was able to uncover the deeper meanings attached to the psychological and contextual factors shown to impact on behaviour change. For example salient words, phrases and metaphors spoken in the Punjabi language were used to articulate the participants' expressions of their lived experience of taking part in the CAHPI. Consequently, these unique findings not only add to the body of knowledge within health psychology and community health psychology, but also add to IPAs distinctive methodological approach. For example, the current findings were able to uncover the subtle process that illuminated the participants' experiences of taking part in the CAHPI. However, despite these encouraging findings, the following issues also require some consideration.

Firstly, whilst all participants showed a keen interest in the study, the level in which they were willing to share their personal experiences varied. This was demonstrated by the relatively moderate duration of each interview: 38 mins in relation to the recommended duration: 60 mins (Smith et al., 2009). Although some detailed accounts were provided, some participants chose to give more generic responses. The participants' reluctance to reveal more detailed personal health related information may have been influenced by the researchers' acquaintance, despite noting earlier that this may have had a positive impact and impression. Consequently this familiarity with some of the

participants may have affected the level of honesty in the responses they provided. Additionally, it is important to note that the participants may have felt uncomfortable voicing any criticism regarding the CAHPI to the same person who interviewed them about it. In accordance, the researcher felt the need to protect and respect their privacy by reacting to the non-verbal cues provided by the participants during the interviews. Alternatively, this limitation could also have been attributed to the participants not being familiar with engaging in such types of conversation.

Reflecting on the issues discussed above, the analyses of some interviews and the themes derived from those analyses, may have been quite descriptive. More in-depth analyses would allow greater insight into the participants' experiences in the course of the intervention. It is anticipated to explore the current themes in more depth for publication at a later stage through the following strategies. For example more in-depth reflections on the role of the researcher during the analytical process may uncover some additional salient issues relating to the participants experience of the intervention. In addition, viewing the data more through the psychological lens of the participants, as well as referring to temporal accounts from the participants at different points during the interview. This process is thought to obtain a deeper level of interpretation of psychological concepts that may illuminate the understanding of the phenomenon being explored (Smith, & Osborn, 2007). In addition, by taking into account a deeper insight of the dynamics relating to the individual, group and community levels of analysis (Campbell & Murray, 2004) may reveal how these dynamics affect the participants' experiences of the intervention.

Another possible limitation that could be viewed to the current findings is the idiographic approach adopted in this study, as it is not possible to generalise the findings to other individuals belonging to the target group. However, it is important to understand the focus of this particular study was on the situated experience of a particular phenomenon emphasising the idiosyncratic nature of that experience. This might have been lost as demonstrated by the insignificant results obtained from the objective measures previously applied to assess the CAHPI for the health behaviour change competency. However, some researchers argue that generalisability of findings in qualitative research are important and maintain that when considering such findings, they should be evaluated regarding their applicability of the concepts uncovered to similar situations and individuals likely to be involved in the phenomenon explored (Carradice, Shankland, & Beail, 2002).

6.3. Implications for practice

Despite some methodological limitations considered in the previous section, the current findings do provide some useful insights to inform future practice in addressing health inequalities observed in the target population.

The setting in which the CAHPI took place; a local Sikh temple, was perceived as a major feature that governed the lives of the target population through shared social and cultural norms, values and beliefs about health, wellbeing and religious practices. Therefore, it can be viewed as an ideal setting in which future interventions to promote health enhancing behaviours for other Sikh groups can be delivered. Although some challenges were observed regarding initial engagement with CAHPI, due to practical issues such as health related appointments and family obligations, these can be addressed by permitting some flexibility with delivery in relation to timings and duration. Additionally, utilising bilingual health workers to emphasise the wider benefits of engaging in health enhancing behaviours may be useful. For example, regular physical activity for maintaining muscle strength and preserving independence and mobility, as well as mental health and well-being (Taylor et al., 2004), may motivate regular engagement. Additionally the process of taking part in regular physical activity may alleviate feelings of social isolation often experienced in marginalised communities (Lawton, et al., 2006).

In addition to practical implications related to the delivery of the CAHPI, useful insights regarding theoretical issues are provided. For example, the principles underpinning the CAHPI were guided by the recently developed COM-B model (Michie et al., 2011). The current findings demonstrated the utility of the model in identifying meaningful theoretical components to facilitate the uptake of the target behaviours. The main components: opportunity, capability and motivation, helped identify how underlying psychological processes such as reflective and automatic motivation, self-efficacy, self-esteem and confidence, collectively helped mediate the target behaviours. Such findings provide some useful arguments for policy providers of the importance of incorporating meaningful activities to facilitate these processes. With regards to the utility of the COM-B model, it is worthwhile to note that despite the positive observations outlined through the use of qualitative

research, and to the author's knowledge, the current study is the first to apply the model within this health area and target population. Therefore the efficacy of the model in similar contexts has yet to be established.

As Blamey & Mutrie (2004) point out, even when strong theoretical evidence appear to provide a useful guide for planning, designing and implementing behaviour change interventions, challenges can arise in translating this evidence into practice. For example, although there is an emphasis on community involvement in the design and delivery of community-based interventions (Netto et al., 2010), Blamey & Mutrie (2004) maintain a balancing act is required between making local adaptations to programmes and ensuring the context and content of such interventions are conducive to maintaining key criteria that initially contributed to its efficacy. It is also important to conduct appropriate types of evaluations of previously applied activities in new contexts. The current findings highlight that health related policy makers should take into account the importance of process, as obtained through qualitative research methods in relation to facilitating health outcomes. Additionally, they should also acknowledge the efficacy of strategies and resources adopted in existing initiatives, such as the use of bilingual healthcare workers. Investment in appropriate training for these valuable individuals to be more sensitive in responding to non-verbal cues of the intervention attendees should be considered (Sidhu et al., 2015). Also the current findings highlighted the utility of fear appeal strategies in facilitating the process of behaviour change, despite the controversial nature of previous evidence (Ruiter, Kessels, Peters, & Kok, 2014). Additionally, it is important to acknowledge that elderly individuals can take longer to process information, therefore more attentive responses from health workers would facilitate more meaningful interactions during the learning process when communicating health related information. Nevertheless, despite these challenges, the overall study findings do offer exciting opportunities for informing policy through wider collaboration with a range of disciplines. For example, community health psychology highlights behaviour change interventions need to be considered at the individual, the group and the community level to be effective as well as examining the broader process and structures that maintain social inequalities in the target population (Murray & Chamberlain, 2004).

6.4. Suggestions for future research.

Future studies should build on the current findings to design more meaningful CAHPIs, by taking into account theoretical components identified by the target group to facilitate the development of psychological processes underlying behaviour change. In addition, the collective strength from disciplines such as exercise psychology, (Smith & Bird, 2004), community psychology (Nelson, & Prilleltensky, 2010), community health psychology (Murray & Chamberlain, 2004; Murray et al., 2004), and health psychology (Ogden, 2012) all conducive to promoting health enhancing behaviours in diverse settings and populations, offer valuable insights to inform best practice in future public health agenda's. Shared insights can jointly assist in better understanding the factors that sustain some of the health inequalities observed in the target population. Together they can help facilitate the development of positive health and well-being for the target population, by helping design meaningful behaviour change interventions.

Given the target behaviours, specifically inactivity being viewed as a public health problem, exercise scientists Smith & Bird, (2004), maintain that this problem is best dealt with at policy level. To help steer this process, it is suggested that academics should aim to place their research into broader contexts and assess its potential value. Hence they should focus on the rationale for undertaking research the research in the first place. Accordingly, is suggested such research findings should aim to reach those of influence outside the academic arena, and aim to work with the health and medical professions. This may help them understand the real world problems of health, and collaborate with research that will provide some of the answers to such problems (Smith & Bird, 2004). Finally, prospective studies should consider examining similar contexts within the UK as well as those that have a high residency of Punjabi Sikh immigrants including the USA and Canada, with the view of producing a wider impact in promoting positive health and wellbeing.

6.5. Conclusion

One of the fundamental aims of health psychology, community psychology, community health psychology and exercise psychology, is to better understand the psychological and contextual factors that facilitate health promoting and health compromising behaviours in the development of health and illness. These are studied within diverse contexts, including community settings and populations. Community health psychology, in particular emphasises the importance of promoting health and well-being for marginalised communities, such as the one investigated in the current study. This approach to understanding health related concerns, maintains the importance of considering psychosocial mediators characteristic of cultural groups, and meanings assigned to them that may influence health behaviours. Accordingly, it advocates the use of research methodologies and approaches conducive of capturing understanding and meaning in diverse contexts, such as interpretative and discursive approaches. The current study demonstrated IPA to be an appropriate research methodology to address those aims. IPA allowed the opportunity for this generally ‘unheard’ population to voice their views regarding their experience of taking part in a CAHPI. The findings uncovered some salient features the target population perceived to be meaningful to their socio-cultural and particularly age related health needs.

To the researchers’ knowledge, this is the first study to examine a group of elderly Punjabi Sikh immigrants’ experience of taking part in a CAHPI to facilitate physical activity and healthy eating behaviours. The techniques adopted by the IPA approach, were able to uncover some insightful experiential accounts the participants attached to taking part in the CAHPI, shown to hinder as well as facilitate the process of behaviour change. These unique findings not only add to the body of knowledge within health psychology, but also add to development of knowledge within the field of community health psychology, to which the research seems more appropriate. In addition, it also contributes to knowledge regarding IPA’s distinctive methodological approach. Furthermore, the techniques adopted by this approach helped uncover meaningful components relating to the CAHPI’s design, which in turn may have facilitated the process of behaviour change. These components were

underpinned by the recently developed COM-B model, and such insights may help design similar interventions to promote wider engagement of the target population. Overall, it can be concluded, collective insights from a range of disciplines, helped understand the mechanisms through which the target health behaviours occur, and consequently helped understand how they influence the development of health and illness prevalent in the target population. These important insights may help provide better informed evidence based strategies grounded within deeper levels of analyses to improve the health inequalities evidenced in this highly vulnerable target population.

7. References

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7. Appendices

Appendix A: Semi-structured interview schedule

Study title: How do people from a Sikh community experience a temple based health promotion initiative? An interpretative phenomenological analysis.

- **State: interview number**
 - **Date:**
 - **Interviewer:**
 - **Interview duration:**
-

(1) Experience of personal health

1. Can you tell me a brief history about your health?
 - a. Have you always been healthy / unhealthy?
2. What do you do to keep yourself healthy?
 - a. What motives you to keep yourself healthy?
 - b. An existing health condition?
 - c. Other?
3. How does your current health-affect you everyday life?
 - a. Work, housework, interests, social life, relationships?

(2) Experience of any previous health promotion initiatives

4. Are you aware of any health promotion services in Nottingham (i.e. somewhere you can go to learn about how to look after your health)?
 - a. If yes, what services have you been to, and what was your experience of them?

(3) Experience of temple based initiative

5. How did you feel about the health promotion programme being based in the temple?
 - a. What made you participate?
6. How did you experience the scheduled activities?
 - a. What did you think while taking part in the activities?
 - i. The 'health checks'?
 - ii. Health facts relating to the Sikh community?
 - iii. Health target setting and weekly monitoring?
 - iv. Chair- based yoga
 - v. The 'cook and eat' sessions?
7. Have you made any changes to you daily lifestyle since coming on the program?
 - a. If so, what do you do now you could not do before the program?
 - b. What helped you make any changes?
8. From your experience, what could be done to make the program better?

Thank you for your participation

End of interview

Appendix B: Ethics approval form

For Office Use Only

Ref. Number	
Assigned Reviewers	
Recommendation	
Outcome	



Queen Margaret University
EDINBURGH

APPLICATION FOR ETHICAL APPROVAL FOR A RESEARCH PROJECT

This is an application form for ethical approval to undertake a piece of research. Ethical approval must be gained for any piece of research to be undertaken by any student or member of staff of QMU. Approval must also be gained by any external researcher who wishes to use Queen Margaret students or staff as participants in their research.

Please note, before any requests for volunteers can be distributed, through the moderator service, or externally, this form **MUST** be submitted (completed, with signatures) to the Secretary to the Research Ethics Panel.

You should read QMU's chapter on "Research Ethics: Regulations, Procedures, and Guidelines" before completing the form. This is available at:

<http://www.qmu.ac.uk/quality/rs/default.htm>

Hard copies are available from the Secretary to the Research Ethics Panel.

The person who completes this form (the applicant) will normally be the Principal Investigator (in the case of staff research) or the student (in the case of student research). In other cases of collaborative research, e.g. an undergraduate group project, one member should be given responsibility for applying for ethical approval. For class exercises involving research, the module coordinator should complete the application and secure approval.

The completed form should be typed rather than handwritten. Electronic signatures should be used and the form should be submitted electronically wherever possible.

Applicant details

1. Researcher's name: Krishna Bhatti
2. Researcher's contact email address: krishna.bhatti@coventry.ac.uk
3. Category of researcher (please tick and enter title of programme of study as appropriate):

QMU undergraduate student	
Title of programme:	
QMU postgraduate student – taught degree	
Title of programme: Professional Doctorate in Health Psychology	√
QMU postgraduate student – research degree	
QMU staff member – research degree	
QMU staff member – other research	
Other (please specify)	

4. School: School of Arts, Social Sciences and Management
5. Division: Psychology and Sociology
6. Name of Supervisor or Director of Studies (if applicable): Dr Joanne Fox
7. Names and affiliations of all other researcher who will be working on the project: None

Research details

8. Title of study: An evaluation of a culturally adapted health behaviour change intervention to promote healthy eating and physical activity in a local Sikh community. An interpretative phenomenological analysis
9. Expected start date: 16-02-14 - 28-02-14 Data collection
10. Expected end date: 31-12-14- Thesis submission
11. Details of any financial support for the project from outside QMU: None identified at present
12. Please detail the aims and objectives of this study (max. 400 words)

The main aims of the study are to explore:

1. How do older Sikh Punjabi speaking immigrants' experience taking part in a structured culturally adapted health promoting intervention?
2. The efficacy of the procedures applied in helping participants promote healthy eating and physical activity related behaviours.

Methodology

13. Research procedures to be used: *please tick all that apply.*

	Tick if applicable
Questionnaires (<i>please attach copies of all questionnaires to be used</i>) <ul style="list-style-type: none">• Brief survey: to assess the Health Behaviour Change Intervention	√
Interviews (<i>please attach summary of topics to be explored</i>) (<i>the IPA interview schedule</i>)	√
Focus groups (<i>please attach summary of topics to be explored / copies of materials to be used</i>)	
Experimental / Laboratory techniques (<i>please include full details under question 14</i>)	
Use of email / internet as a means of data collection (<i>please include full details under question 14</i>)	
Use of questionnaires / other materials that are subject to copyright (<i>please include full details under question 14 and confirm that the materials have been / will be purchased for your use</i>)	
Use of biomedical procedures to obtain blood or tissue samples (<i>please include full details under question 14 and include subject area risk assessment forms, where appropriate</i>)	
Other technique / procedure (<i>please include full details under question 14</i>)	

14. Briefly outline the nature of the research and the methods and procedures to be used (max. 400 words).

This text box will expand as required.

1. Literature review: South Asians' (SA) have an increased risk of developing chronic conditions and these are significantly attributed to lifestyle factors including unhealthy eating and inactivity (Babakus & Thomas, 2012; Chapman, 2013). It is further recognised that these unhealthy behaviours are influenced by both psychological and socio-cultural factors including a lack of understanding between behaviour and health links, as well as problems accessing mainstream health promoting services (Lucas, Murray, Kinra, 2013). Language and communication pose major barriers towards understanding the behaviour and health links from existing mainstream health promoting interventions (Hipwell, 2007). Culturally adapted interventions aiming to promote healthy lifestyle behaviours in SA communities by addressing the identified psycho-socio-cultural barriers mentioned have shown promising results. 'Apne Sehat'; meaning 'Your Health' in Punjabi, a common language spoken by many SA communities including Sikhs, is an example of a successful intervention delivered over 12 months in a local temple by a range of healthcare professionals and lay members from the community. The intervention aimed to help change attitudes and beliefs towards adopting healthy lifestyle behaviours (Coe & Boardman, 2008). 'Apnee sehat de sambal'; meaning 'look after your health yourself' is an adaptation of Coe & Boardman's (2008) study. This was a shorter 12 week interactive, structured program also delivered in a local Sikh temple. It was designed to provide opportunities to enhance both psychological and physical capabilities and motivation to increase the target behaviours. It was anticipated participants would provide peer support for each other when sharing knowledge and develop successful self-help strategies. The intervention comprised of educational as well as practical components; taking into account the participants' physical health and literacy status. It was delivered by the researchers' and healthcare professionals conducting their routine community based services, as well as a lay member of the community. Core components included self defined goal setting, action planning and problem solving.
2. Aims: see above
3. Research design
 - 3.1 Research method: Interpretative Phenomenological Analysis (IPA), was chosen as the method of choice to address the research aims, as it seeks to uncover how people make sense of their unique life experiences (Smith, Flowers and Larkin, 2009: 1), by formulating their own biographical stories (Brocki and Wearden 2006:88). The participants' experience of the intervention is of interest to the investigation rather than the intervention itself. This approach will allow the researcher to uncover how each participant interprets the efficacy of interventions' implementation. It will help assess whether the opportunities provided to enhance the psychological and physical capabilities, motivated participants to increase the target behaviours.
 - 3.2 Sample and recruitment: A purposeful sample; participants who took part in 'Apnee sehat de sambal' program, consisting of 7 elderly Sikh immigrants; 3 males and 4 females, mean age of 70, will be contacted via telephone by the PI following ethical approval to arrange individual interviews. The nature of the study will be explained over the telephone in Punjabi, as this is the preferred language of all the participants, and the PI is bi-lingual in speaking English and Punjabi. This contact will allow any ambiguities the participants may have about the nature or their involvement in the study to be clarified.
 - 3.3 Data generation / ethical considerations: Face-to face interviews of approximately 45mins will be conducted in Punjabi by the PI at the venue the intervention took place during a mutually convenient time towards the end of February 2014. Permission to conduct the interviews via the Temple's gatekeeper has been obtained (attachment 1). A participant information sheet (PIS) written in English highlighting the nature of the study will be presented to the participants before conducting the interviews (attachment 2). Similarly, a participant consent sheet (CS) will be given to each participant to obtain formal consent for taking part in the study (attachment 3). Due to the participants' low literacy levels in written and spoken English; the nature, involvement and right to withdraw from the study at any time will be verbally conveyed in Punjabi by the researcher. This process aims to ensure

participants fully understand their potential voluntary involvement in the study, and that confidentiality and anonymity will be respected. This mode of communication was preferred over written Punjabi translations of the PIS and CS used in the previous study, as many participants are not literate in the written Punjabi language.

3.4 Resources: Semi-structured Interview schedule

A semi-structured interview (SSI) schedule will be used to elicit the data (attachment 4). The SSI was developed by identifying and framing IPA research type questions (Smith, Flowers and Larkin, 2009), with key issues relating to the research question.

Tape recorder: A digital tape recorder will be used to record the interview data, and this will be kept on a password protected computer. The tape recorder will be kept in a locked cabinet.

3.5 Time: The SSI will be piloted on obtaining ethical approval with one of the original participants; any necessary modifications will be made. All interviews of approx 45mins aimed to be conducted by 28th Feb. Transcription of data aims to be conducted by 28th Mar. Data analysis and interpretation aims to be conducted by 30th May. The study aims to be written up and submitted by 19th Sept 2014.

3.6 Analysis: The interviews will be conducted in Punjabi, as previously mentioned this is the preferred language of all the participants. The interviews will be transcribed and translated word for word from the spoken Punjabi language into written roman English by the researcher. To validate this translation; another health psychology researcher, also fluent in the Punjabi language and written English, will transcribe 3 of the 7 interviews again in roman English. Any discrepancies in the translations will be discussed between the two Punjabi speaking researchers, and if necessary possible clarification can be sought by contacting the participants. Following the principles of IPA, each transcript will be analysed individually. This will involve the researchers' initially becoming familiar with the data by reading and re-reading each transcript and annotating any interesting issues on a semantic level. Emerging themes from the initial annotations will then be labelled. Any connecting themes or labels will then be clustered into master themes or set aside as subordinate themes in view of their priority within the data. This process will be followed for each transcript, with an attempt to integrate all the identified themes within and across all the transcripts. The themes will then be translated in the discussion section (Willig, 2013).

3.7 Reflexivity: Reflective notes regarding the PI's relationship with the study will be kept throughout the research process. Issues concerning possible expectations and investment in what may be discovered as a result of the study will be noted, as personal interest in the subject matter may influence the findings and hence the interpretations.

3.8 Dissemination

The PI has opportunities to disseminate the study findings in the following journals and forums:

Health Inequalities
Health Psychology
Qualitative Journals
Local research forums

3.9 Ethical guidelines

The investigation will be conducted by adhering to the ethical guidelines as set out by Queen Margaret University's research ethics committee.

4. References: see attached

15. Does your research include the use of people as participants? *Please delete as appropriate.* **Yes / No**

16. Does your research include the experimental use of live animals? *Please delete as appropriate.* **Yes / No**

17. Does your research involve experimenting on plant or animal matter, or inorganic matter? *Please delete as appropriate.* **Yes / No**

18. Does your research include the analysis of documents, or of material in non-print media, other than those which are freely available for public access? *Please delete as appropriate.* ~~Yes~~ **No**

19. If you answered 'Yes' to question 18, give a description of the material you intend to use. Describe its ownership, your rights of access to it, the permissions required to access it and any ways in which personal identities might be revealed or personal information might be disclosed. Describe any measures you will take to safeguard the anonymity of sources, where this is relevant:

This text box will expand as required.

20. Will any restriction be placed on the publication of results? *Please delete as appropriate.* ~~Yes~~ **No**

21. If you answered 'Yes' to question 20, give details and provide a reasoned justification for the restrictions. (See Research Ethics Guidelines Section 2, paragraph 7)

This text box will expand as required.

22. Will anyone except the named researchers have access to the data collected? *Please delete as appropriate.* **Yes /~~No~~**

23. Please give details of how and where data will be stored, and how long it will be retained for before being destroyed. (See Research Ethics Guidelines Section 1, paragraph 2.4.1)

This text box will expand as required.

Please refer to section 14

24. Please highlight what you see as the most important ethical issues this study raises (eg. adverse physical or psychological reactions; addressing a sensitive topic area; risk of loss of confidentiality; other ethical issue. If you do not think this study raises any ethical issues, please explain why).

This text box will expand as required.

In the unlikely event that participants experience any adverse effects of participation, they will be signposted to relevant services including their GP, a local dietician or other healthcare worker relating to specific needs identified by the participant. Details of whom to contact will be provided on the participant information sheet attached.

25. If you have identified any ethical issues associated with this study, please explain how the potential benefits of the research outweigh any potential harms (eg. by benefiting participants; by improving research skills; other potential benefit).

This text box will expand as required.

As outlined above, in the unlikely event that participants experience any adverse effects of participation, they will be signposted to relevant services including their GP, a local dietician or other healthcare worker relating to specific needs identified by the participant. Details of whom to contact will be provided on the participant information sheet attached. Additionally, any shortcomings identified regarding the process of the research, may serve to improve subsequent related projects for the researcher and those interested in this field of study.

Protection for the Researcher

26. Will the researcher be at risk of sustaining either physical or psychological harm as a result of the research? *Please delete as appropriate.* **Yes/No**

27. If you answered 'Yes' to question 26, please give details of potential risks and the precautions which will be taken to protect the researcher.

This text box will expand as required.

Research Involving Human Participants

You should only complete this section if you have indicated above that your research will involve human participants.

28. Please indicate the total number of participants you intend to recruit for this study from each participant group:

Participant Group	Please state total number
QMU students	
QMU staff	
Members of the public from outside QMU	6-7
NHS patients	
NHS employees	
Children (under 18 years of age)	
People in custody	
People with communication or learning difficulties	
People with mental health issues	
People engaged in illegal activities (eg. illegal drug use)	
Other (please specify):	

** Please declare in section 32 where the participant group may necessitate the need for standard or enhanced disclosure check*

29. Please state any inclusion or exclusion criteria to be used. (See Research Ethics Guidelines Section 1, paragraph 2.4)

This text box will expand as required.

Please refer to section 14

30. Please give details of how participants will be recruited:

This text box will expand as required.

Participants are all members of a local Sikh temple the researcher is associated with in Nottingham. All participants have expressed an interest to take part in this health promotion project.

31. Please describe how informed consent will be obtained from participants. (See Research Ethics Guidelines Section 1, paragraphs 2.1.2 – 2.1.5)

This text box will expand as required.

The nature of the project will be explained verbally in Punjabi to each participant over the phone. Written information in English about the study will also be given to the participants in large print. Only when participants are happy to take part in the project will signatures for consent be requested. The right to withdraw at any stage of the research without giving any reason also be clearly highlighted (refer to participant information sheet, consent form and debrief form).

32. Ethical Principles incorporated into the study (*please tick as applicable*):

	<i>Tick as applicable</i>
Will participants be offered a written explanation of the research?	√
Will participants be offered an oral explanation of the research?	√
Will participants sign a consent form?	√
Will oral consent be obtained from participants?	√
Will participants be offered the opportunity to decline to take part?	√
Will participants be informed that participation is voluntary?	√
Will participants be offered the opportunity to withdraw at any stage without giving a reason?	√
Will independent expert advice be available if required?	√
Will participants be informed that there may be no benefit to them in taking part?	√
Will participants be guaranteed confidentiality?	√
Will participants be guaranteed anonymity?	√

Will the participant group necessitate a standard or enhanced disclosure check?	no
Will the provisions of the Data Protection Act be met?	√
Has safe data storage been secured?	√
Will the researcher(s) be free to publish the findings of the research?	√
If the research involves deception, will an explanation be offered following participation?	n/a
If the research involves questionnaires, will the participants be informed that they may omit items they do not wish to answer?	√
If the research involves interviews, will the participants be informed that they do not have to answer questions, and do not have to give an explanation for this?	√
Will participants be offered any payment or reward, beyond reimbursement of out-of-pocket expenses?	no

33. Risk Assessment



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Reference:	
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School / Division:		Location:		Date	
Assessed by:		Job Title:		Signature	
Activity / Task:		Total Number exposed to risk		Review Date	

Ref no.	Hazards	People at risk					Likelihood				Severity				Total risk	Existing control measures	Adequate controls?
		Employees and	Members of	Contractors	Young people	Mothers: new or	Improbable	Remote	Possible	Probable	No injury	Minor	Major	Fatal			
1.																	
2.																	
3.																	
4.																	
5.																	
Risk value (RV)							1	2	3	4	1	2	3	4			

Total risk = Likelihood (RV) x Severity (RV)
risk

Total risk of 1 – 4 = 'L', low risk

Total risk of 6 – 9 = 'M', medium risk

Total risk of 12 – 16 = 'H', high risk



Reference:	
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Remedial action required

Ref no.	Action required	Target date	Action by:	Date completed
1.				
2.				
3.				
4.				
5.				

Declarations

34. Having completed all the relevant items of this form and, if appropriate, having attached the Information Sheet and Consent Form plus any other relevant documentation as indicated below, complete the statement below.

- I have read Queen Margaret University's document on "Research Ethics: Regulations, Procedures, and Guidelines".
- In my view this research is:

<i>See Research Ethics Guidelines Section 6</i>	<i>Please tick</i>
Non-invasive	√
Minor invasive using an established procedure at QMU	
Minor invasive using a NEW procedure at QMU	
Major invasive	

- I request Ethical Approval for the research described in this application.
Name (if you have an electronic signature please include it here)

_____ k.bhatti _____ Date __06-02-13_____

Documents enclosed with application:

Document	Enclosed (please tick)	Not applicable (please tick)
Copy of consent form(s)	√	
Copy of information sheet(s)	√	
Sample questionnaire	√	
Example interview questions	√	
Copy of proposed recruitment advert(s)	√	
Letters of support from any external organisations involved in the research		√
Evidence of disclosure check		√
Division risk assessment documentation		
Any other documentation (please detail below)		
Risk Assessment		

35. If you are a student, show the completed form to your supervisor/Director of Studies and ask them to sign the statement below. If you are a member of staff, sign the statement below yourself.

- I am the supervisor/Director of Studies for this research.
- In my view this research is:

<i>See Research Ethics Guidelines Section 6</i>	<i>Please tick</i>
Non-invasive	
Minor invasive using an established procedure at QMU	

Minor invasive using a NEW procedure at QMU	
Major invasive	

- I have read this application and I approve it.

Name *(if you have an electronic signature please include it here)*

Date _____

36. For all applicants, send the completed form to your Head of Division or Head of Research Centre or, if you are an external researcher, submit the completed form to the Secretary to the QMU Research Ethics Panel. **You should not proceed with any aspect of your research which involves the use of participants, or the use of data which is not in the public domain, until you have been granted Ethical Approval.**

FOR COMPLETION BY THE HEAD OF DIVISION/HEAD OF RESEARCH CENTRE
Either

I refer this application back to the applicant for the following reason(s):

Name *(if you have an electronic signature please include it here)*

Head of Division / Research Centre

Date _____

Please return the form to the applicant.

Or

Please tick **one** of the alternatives below and delete the others.

I refer this application to the QMU Research Ethics Panel.

I find this application acceptable and an application for Ethical Approval should now be submitted to a relevant external committee.

I grant Ethical Approval for this research.

Name *(if you have an electronic signature please include it here)*

Head of Division / Research Centre

Date _____

Please send one copy of this form to the applicant and one copy to the Secretary to the Research Ethics Panel, Quality Enhancement Unit, Registry.

Date application returned: _____

Appendix C: Participant information sheet



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Information Sheet for Potential Participants

Study 2:

An evaluation of a culturally adapted health behaviour change intervention to promote healthy eating and physical activity in a local Sikh community. An Interpretative Phenomenological Analysis

My name is Krishna Bhatti and as you know I am a doctoral student at Queen Margaret University in Edinburgh. As part of my course I am undertaking the above study for my dissertation.

This study aims to explore and understand your experience of taking part in the recent structured and culturally adapted health promoting programme delivered in the Sikh temple. It also aims to assess the procedures implemented within the intervention that aimed to promote healthy eating and physical activity related behaviours. The findings of the study will be useful towards finding the best methods to increase physical activity and healthy eating and try to minimise health risks within the Sikh and South Asian community.

You have been selected to take part in this study because of your recent involvement in the health promotion programme delivered in the Sikh temple. If you agree to participate in the study, you will be asked to take part in an informal interview about your experience of the health promotion programme. The interviews should not take up more than one hour of your time. The interview will be conducted in Punjabi by me at the Sikh temple where the health promotion programme took place. I aim to conduct all the interviews between 12th and 28th February 2014. The interviews will be audio taped to help me capture everything that is discussed. You do not have to answer any questions you feel uncomfortable with. You will be free to discuss any issues that you feel are important to you regarding the programme.

I am not aware of any risks associated with conducting the project; however should any arise advice will be sought from healthcare professionals. You will be free to withdraw from the study at any stage and you will not have to give a reason.

All the data collated will be anonymised as much as possible by assigning labels to all the participants interviewed e.g. Participant 1 Male will be labelled as P1M. Audio recordings will only be heard by me and another Punjabi speaking health psychology researcher to help validate the data. Once all the data has been transcribed, all the audio recordings will be deleted. The results of the study may be published in a journal or presented at a conference.

If you would like to contact an independent person, who knows about this project but is not involved in it, you are welcome to contact Dr Joanne Fox Senior Lecturer/Director of Studies. Her contact details are given below.

If you have read or understood this information from the verbal explanation provided in Punjabi, and have had any questions about the study answered, and you would like to be a participant in the study, please let me know which date will be appropriate to arrange an interview.

Contact details of the researcher

Name of researcher: Krishna Bhatti
Address: Doctoral Student, Division: Psychology and Sociology
School: School of Arts, Social Sciences and Management
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU
Email / Telephone: 07007039@qmu.ac.uk / 0131 474 0000

Contact details of the independent advisers (note that the independent adviser cannot be a member of your supervisory team)

1. Name of adviser: Dr Joanne Fox

Address: Senior Lecturer/Director of Studies,
School: School of Arts, Social Sciences and Management
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU

Email / Telephone: 0131 474 0000

2. Name of adviser: Dr Ducan Robb

Address: Head of Ethics Committee
School: School of Arts, Social Sciences and Management
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU

Email / Telephone: 0131 474 0000

Appendix D: Consent form



Queen Margaret University
EDINBURGH

Consent Form

“Study 2:

An evaluation of a culturally adapted health behaviour change intervention to promote healthy eating and physical activity in a local Sikh community. An Interpretative Phenomenological Analysis”

I have read/understood the information sheet and this consent form. I have had an opportunity to ask questions about my participation.

I understand that I am under no obligation to take part in this study.

I understand that I have the right to withdraw from this study at any stage without giving any reason.

I agree to participate in this study.

Name of participant: _____

Signature of participant: _____

Signature of researcher: _____

Date: _____

Contact details of the researcher

Name of researcher: Krishna Bhatti

Address: Doctoral Student, Division: Psychology and Sociology
School: School of Arts, Social Sciences and Management
Queen Margaret University, Edinburgh

Queen Margaret University Drive
Musselburgh

East Lothian EH21 6UU

Email / Telephone: 07007039@qmu.ac.uk / 0131 474 0000

Appendix E: Table 2: Sample characteristics

Participant	Gender	Age	Marital status	Occupational status's	Health issues	English language and literacy skills	Country of birth
P1	F	49	Divorced	Unemployed	High blood pressure Overweight	Poor	India
P2	F	70	Married	Housewife	T2D High blood pressure High cholesterol Overweight Arthritis Indigestion Lethargic	Poor	India
P3	M	75	Married	Retired	T2D High blood pressure High cholesterol	Poor	India
P4	F	73	Married	Housewife	High blood pressure Overweight Arthritis	Poor	India
P5	M	73	Married	Retired	T2D High blood pressure High cholesterol Overweight	Poor/Good	India
P6	F	68	Married	Housewife	T2D High blood pressure High cholesterol Overweight Arthritis	Poor	India
P7	M	80	Married	Retired	T2D High blood pressure High cholesterol Overweight Arthritis	Poor/Good	India

Appendix F: Reflective notes

Date	Stage of analyses
21-5-16: 3am	<p>Again, having made one attempt to write this section previously; the feedback given by supervisors was invaluable, especially reading it second time round, and revisiting this several months later due to full time job. It was hard to get the gist of it, but having done some wider reading; texts regarding the process, example studies, really trying to pin point procedures; trying hard to distinguish the differences between the recommended analysis steps; it has started to become clearer</p> <p>Making notes about how they relate to my study and RQ is useful to try and retain a focus</p> <p>I welcomed the aspect of incorporating my perspectives and how they influences my thinking and hence my actions</p> <p>Trying to be more systematic in my analysis second time round, by writing down what I feel I need to do ,and ticking off those points once completed , this helped me keep a track of my progress, by occasionally reflecting after every bit of learning ‘ what new thing have I learned, that will help move forward with this. I’m writing this section at 3am in the morning because having done some reading, found myself dreaming about themes and process involved in the analysis; so just decided to get up and work on it instead of dreaming about it and worrying about it</p> <p>Wider texts include: Chapter by Shaw, I found her style of writing easy to understand; she has done well to tailor it to novices. I have been actively been making notes of things I felt I pertinent I need to look out for in the data; especially just having written my Method, and emphasised the importance of</p> <ul style="list-style-type: none"> • shared meaning • meaning making; from the perspective of the participants; looking out for bits in the transcripts that show ‘reflection’ • Process of analysis: Descriptive summaries: think I understand what this involves now • I wasn’t too sure about the difference between the next two: making interpretations and conceptual coding. Having read some more p192: • it is all staring to fit together and make sense
25 th May	Merging themes: Found myself re-naming some of them to better reflect what I felt the participants were trying to convey collectively
28 th May	When finding extract to go with sub-themes, it wasn’t always clear cut which sub-themes to map extracts onto, as sometimes extracts seemed relevant in more than one themes, had to think really hard to figure out which one would be best highlight that point e.g. single women / venue / model person, empowerment
11 th June	<p>Some themes were retained and some were discarded, I felt this helped me focus on what seemed relevant in relation to the topic area</p> <p>Looking at the themes emerging seemed to have implications for my practice By removing some of the themes I felt my confidence in the analysis process was growing</p> <p>Behaviour changes sub-theme</p> <p>Suddenly realised I only included healthy eating related extracts and not any PA related ones, so went back through the transcripts to see what I could find. I also realised I was being more selective, and looking out for extracts that seemed more illuminating in relation to psychological undertones. Because I started reading text books in between the analysis, I found the issues I had read before seemed to make more sense, as if the ‘penny had dropped’, and seemed to understand what the authors were getting across.</p> <p>Implication for my practice</p> <p>I was also thinking, from this writing up experience, I would be a much better supervisor in my job as a lecturer, and feel I have come a long way in being able to confidently supervise</p>

	<p>students at both UG and PG level doing IPA projects. Looking forward to next year's cohorts.</p> <p>Uneasy conscious Sometime found it difficult to amalgamate new issues into what I had already written up. It seemed an easier option to disregard them and avoid going through the trouble of rethinking and having to integrate bits of information that seemed important. But ultimately my conscious didn't let me take the easy way out, because of the guilty feeling that participants had taken the trouble to share their very personal feelings and thoughts, and I should air these. I had to keep reminding myself, I needed to illuminate the things that seemed important to them, and show how they made sense of things in relation to the RQ and the themes that related to it.</p> <p>This was the case with theme 3. Meaningful support theme and behaviour changes made. I later changed it to making sense of behaviour changes, because not all the behaviours were a result of the CAHPI, some behaviours relating to HE and PA were already present, and I felt I owed it to the Ps to acknowledge that. But it seemed the CAHPI did in some cases help illuminate the importance of maintaining these behaviours to improve their health status.</p>
Sunday 12 th June	<p>Sometimes it was difficult to determine which sub-theme to place certain extracts; e.g. when trying to look for extracts that linked with PA, some seem to link to another sub-theme; life stages and walking, so I placed it in there and then try and link it with the other sub-theme it also related too. Looking at examples in other studies helped see how this was done</p> <p>Now I have decided to remove the PA aspect from the behaviour changes sub-theme because the PA had been addressed in other sub-themes – time is not on my side and I have to make some time conscious decisions, but also at the same time, trying to retain a good standard of work that reflects some balanced views and insights from participants and the analysis.</p>
19.27	<p>Changed sub-theme 3.2 again to:</p> <p>Making sense of health eating and PA behaviours</p> <p>Decided to include PA now</p>
Monday 13 th June	<p>Importance of focusing on meaning</p> <p>Talking about my understanding to a colleague, made me realise the importance of meaning making from the participants point of view. Trying to help illuminate the situation from their individual life experiences and contextual issues. So from here I still have 2 master themes to analyse; so I am going to try hard and focus on these points</p>
Wednesday 15 th	Decided to move operation issue to 4 th master theme : existing health problems, feels it sits better there
V16	
V17	Decided to collapse the two sub-themes in 4, and just refer to them as life stage and changed master theme heading to: Problems maintaining health behaviours
23.17	<p>Getting there, end of general Impression theme ☺</p> <p>Calling it a night for now, physically can't manage to finish this section</p>
V18	<p>Final version of results refined from v17</p> <p>Word count for final on v17: 12,152</p>
V18 refined 18 th June	<p>Need to get in my head the difference between Epistemology and ontology</p> <p>Epistemology: how can we know; the kinds of knowledge it produces, the assumptions it makes about the world it studies, and the role of the researcher in the research process.</p> <ul style="list-style-type: none"> • How participants view or experience the world – obtaining insight of another person's thoughts and beliefs • IPA starts with an assumption; their accounts tell us something about their private thoughts and feelings, and that these are implicated in people's experiences • IPA aims produce knowledge of what and how people think about a topic • Takes a realist approach to knowledge production

	<p>Ontology: what is there to know; In relation to IPA:</p> <p>Critical realist approach: - no real direct access to reality</p> <p>Relativist position; no such thing as pure experience', aim of research is ought to be an exploration of the ways in which cultural and discursive resources are used to construct the use of methods that can identify and unpack such resources</p>
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Appendix G: Table 3 Exploring connections across transcripts

Table 2: Stage 6.1 Final themes – further amalgamated with higher order label given row 1					
1.	1. A welcomed initiate	Empowering context	3. Mechanisms promoting behaviour change	4. Difficulties adhering to personal health targets	5. Intervention sustainability
2.	<ul style="list-style-type: none"> Potential benefits of participation Impact of CAHPI Positive characteristics/impact of CAHPI Unaware of other health promoting initiatives Liberating to talk about personal health issues Curious; health beliefs Opportunity to strive for model person Model person Achieving ideal self not easy Lacks confidence 	<ul style="list-style-type: none"> Empowerment Appropriateness of venue Mode of communication Realisation and awareness of new learning Realisation / awareness Consequences of present health status Current health concerns Current physical health status 	<ul style="list-style-type: none"> Socialisation and peer support Shared/pleasurable activity Mode of communicating knowledge and understanding Negative aspects of programme Mode of facilitating skill acquisition Personal behaviour changes Habit forming 	<ul style="list-style-type: none"> Social cultural practices Shared/pleasurable activity Non-socio-cultural practices 	<ul style="list-style-type: none"> Perceived barriers attending intervention Negative aspects of programme General impression Suggested intervention improvements Programme improvement suggestions Request for follow-up intervention

Appendix H: Transcript 1

Please refer to the thesis hard copy

Appendix I: Transcript 2

Please refer to the thesis hard copy